PROBLEM-BASED LEARNING IN ISLAMIC EDUCATION IN THE FORMAL CURRICULUM: A CASE STUDY OF SECONDARY GIRLS' EDUCATION IN THE KINGDOM OF BAHRAIN

BY

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Dedication

To my parents

(Zayed& Noora)

Abstract

This thesis examines the impact of introducing Problem-Based Learning (PBL) into the Islamic Education (IE) curriculum at Year 11 level (students aged 17) in the Kingdom of Bahrain (KB). The research was motivated by recent recommendations (2011) by the Ministry of Education (MoE) in KB that secondary education should develop students' independent and critical thinking skills, and by my own professional and academic interest in pedagogy.

This study is pragmatic and it uses a mixed methods approach to enhance the validity and reliability of the findings. In view of the examining nature and the context specificity, the case-study strategy of a secondary girls' school in KB was adopted. The core of the research is the implementation of an IE module (Islam organises marital life), designed using PBL methods, into four IE classrooms in a girls' school in KB. The intervention took place over a period of seven weeks. Qualitative data takes the form of classroom observations before and during the PBL intervention and interviews with students, teachers and curriculum specialists employed by the MoE. Quantitative data was collected via questionnaires distributed to students before and after the PBL intervention and through student self-evaluation forms. This data was used to generate statistical results.

The thesis provides a detailed explanation and critical analysis of PBL, and examines its relationship with constructivist learning theories specifically within the context of curriculum IE in KB. It presents a refined model of PBL that is workable for secondary IE in KB, and which might be transferable to similar contexts. This model is new to the education system in Bahrain and is being trialled to test its effectiveness and hopefully integrate it into the country's current secondary teaching methods.The outcomes of this study revealed that teachers deliver knowledge through the use of conventional methods which in turn minimized the role of students in the learning process as passive receivers. Therefore, this study suggests PBL as an appropriate teaching approach to be employed in IE in KB, because it has offered advantages to Islamic Education learning by encouraging students to take a more independent proactive role and communicate more freely. Nevertheless, the implementation of PBL had its difficulties, particularly with regards to getting used to a new learning style, but it was noted that teachers provided sufficient support. The thesis also argues that constructivist learning approaches, albeit within certain boundaries, can be beneficially implemented to confessional religious education, such as curriculum IE in KB. The implementation of PBL under the umbrella of constructivism enhances the independent thinking and knowledge creation by Bahraini learners which in turn helps them comprehend religious resources, and boost their faith.

The research discussed in the thesis is an original contribution to knowledge because it is the only research about PBL in IE in Bahrain as this is a completely novel pedagogy in this particular context.

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Chapter One

Introduction to the study

1.1 Introduction

This study investigates and evaluates the outcomes of introducing problem based learning (PBL) to Year 11 students, aged 17, in Islamic Education (IE) classes in the Kingdom of Bahrain (KB). PBL is a novel teaching and learning method within Bahraini School Education which means this study is a new contribution to knowledge.

Throughout my career as a teacher in KB, I have been very interested in pedagogy and the IE curriculum. I taught IE continuously for five years at secondary level. I then worked for ten years as a supervisor of trainee teachers at the University of Bahrain. As part of my role, I observed trainees and other teachers in classrooms. From that experience, I was fortunate enough to gain an understanding of the appropriate pedagogy required to increase the effectiveness of self-directed learning. It became apparent to me that PBL had never been applied within IE or other school curriculum subjects in KB, and being motivated by a study conducted by Abu-Hijleh et al. (2004) at the Arabian Gulf University in Bahrain about PBL, the idea of this research sprang up.

This chapter offers an overview of the thesis, starting with the primary points of research. First, it provides an outline of the PBL approach, Bahrain's educational policy, and Islamic Education within KB. The transferability of PBL to the context of IE in KB is also clarified. Secondly, the significance of this study is discussed. Thirdly, the study's aims and research questions are listed. Finally, the research methodology is outlined.

1.2Main issues addressed in the thesis

1.2.1The problem based learning approach

Evensen and Hmelo (2008, p. 2) state that PBL has two primary characteristics. Firstly, problems presented to students are 'rich' and allow for a wide scope of analysis and exploration; secondly,

this approach to learning is essentially student-focused where they construct their own learning. The PBL process is conducted loosely as follows:

- Students are divided into small groups of around five or six, with an assigned facilitator.
- A problem is assigned, which is then discussed by the group and the facilitator, who supplies some basic background information to serve as a starting point.
- In their allocated groups, students then explore the problem presented from a number of different viewpoints with the goal of understanding the origins of the problem and offering solutions.

The process is based on identifying the essential elements of the problem, defining learning points for analysis and exploring a number of possible solutions. From my experience of my primary research, information from the Quran and Sunnah must be presented to support potential solutions and the process of analysis and resolution must be described. Finally, a process of reflection takes place, with facilitators helping students to understand what they have learned (Evensen & Hmelo, 2008).

1.2.2 Educational Policy in Islamic Education in the Kingdom of Bahrain

Bahrain's educational policy has its roots in the Kingdom's constitution. Bahrain's Ministry of Education (MoE) document (issued in 2003) established a number of key objectives for the IE secondary curriculum. Two of the objectives put forward were to ensure that students are conscious of identifying real answers to current difficulties, and to rejuvenate ijtihad. In Islamic culture, ijtihad refers to effort to reach legal rulings from evidence (Danasory, 2009). A key motivation for implementing PBL within IE is to make IE more efficient in achieving the capacity to rejuvenate ijtihad because students practice independent thinking to reach evidence-based conclusions. KB is currently undergoing a period of dramatic socioeconomic and cultural change; education is thus of vital importance in enabling young people to thrive in a rapidly evolving world.

Bahrain's MoE document (issued in 2006) emphasises that learning is most effective when students are actively engaged in learning activities; for example self-directed learning or working in groups. In addition, according to the MoE (2006), educational policy is concerned with helping students to develop critical thinking and creative skills in order to encourage free expression and innovation and thus support Bahrain's social, political and economic development.

Additionally, Islam is central to KB's culture and is an integral part of its current transformation. Ideally, IE allows students to maintain a strong sense of themselves as Muslims, while at the same time equipping them with tools to deal with changing socioeconomic and cultural conditions. This study aims to discover whether integrating PBL at secondary level IE in KB is effective andachieve the goals of the MoE or not. The finding of this research has identified specific capabilities such as self-directed learning and independent thinking among Bahraini students. Eventually, it is hoped that this will have a positive impact on students through enhancing the development of their reasoning abilities and knowledge, which are vital for the achievement of educational policy objectives as well as for adherence to modern-day educational standards.

Sheik (2011) points out that rapid development in life and technology have had a great influence on jurisprudence issues that require legal opinions to be in accordance with new technology and developments. IE is thus very important in teaching Muslims to make informed and independent decisions without departing from the principles of the Holy Quran and the Sunnah. The Sunnah are Prophet Mohammed's Peace be upon him (PBUH) sayings, acts, ethics, morals and biography which are in line with the command of Allah(Aqatash & Aumary, 2010, p.174). Muslims refer to rules from the Quran and Sunnah in all aspects of life, including marriage, politics and economics. For Muslims, Islam is not just a religion; it is a way of life so that individuals may worship Allah consciously. Hussain (2004) criticised Plato's educational theory which was based purely on reason, while education in Islamic culture includes both spiritual and corporeal aspects. From the Islamic point of view, however, it is important to mention that every Muslim has the right to decide which Islamic provisions relate to any issue in their life; the issuance of these provisions is thus not solely dependent on any particular person or government. Consequently, a Muslim should be able to argue with Islamic jurists about any decisions they

make. Students should therefore be prepared to make decisions related to Islamic provisions in order to decide which provisions are most appropriate for them as individuals.

Applying PBL in IE may meet these needs by training students to make decisions independently. To make this clear, I would like to provide a recent real-life example. It is now possible to install a Quran application on mobile phones. We know from the Quran is that it is forbidden to enter the bathroom with a copy of the Quran "That [has been commanded], and whoever honours the sacred ordinances of Allah-"(Quran 22:30);the question now arises: can we enter the bathroom with a mobile phone knowing that there is a Quran application on it? According to Closson (2011) PBL contributes to the development of independent thinking, enhances critical thinking skills and motivates learning based on practice. These critical thinking skills enable students to look for solutions to specific problems from different perspectives; they also train students to respect the decisions of others despite their differences.

1.3 Significance of this study

The research is significant because it responds to the MoE's goals for Bahraini education, and because it makes a new contribution to knowledge. The lack of previous research in this area inspired my choice to study IE teaching styles in the context of Secondary schools in KB. This study is being undertaken to identify the shortcomings of teaching methods in IE and to present possible remedies, as well as to provide a resource regarding IE teaching styles in KB. It uses a case-study approach to evaluate PBL in IE in a Bahraini girls' high school. To the best of my knowledge, mine is the only research about PBL in IE in Bahrain as this is a completely novel pedagogy in this particular context. Other research papers about PBL have been published, but these are for different educational levels or in different contexts to my research. For example Abdul Razzak (2012) writes about PBL in Bahrain Teacher College (BTC) and some other authors have published PBL studies in Bahrain in fields such as medicine Kassab et al., (2005a), Kassab et al., (2005b) and Al-Shaibani et al., (2003).There is also Kotammei (2004) who writes about PBL in primary schools in Jordan.

1.3.2 Research hypotheses: aims and questions

The main aim of this research, as mentioned above, is "investigating and evaluating the outcomes of implementing PBL in IE in KB". To achieve this aim, the research objectives are as follows: firstly, to analyse existing teaching methods within IE in KB in order to understand the delivery process and its influence on students' self-directed learning skills; and secondly, to devise and implement an IE module, based on PBL, in four secondary classrooms to observe its impact on students' independent problem-solving skills in the context of IE. These objectives support my professional interest in investigating and evaluating the outcomes of PBL's application in IE and see in which way it could achieve the MoE goals.

Three research questions were formulated to achieve the aims of this research:

Q1: How do conventional pedagogies in IE in a Bahrain girls' secondary school impact on students' learning experience?

Q2: How does the implementation of PBL work within the context of Islamic Education in a Secondary girls' school?

Q3: Can PBL be integrated within the current Islamic Education system in the Kingdom of Bahrain?

1.4 Research methodology

The research strategy is a case study of secondary level IE classes at a girls' school in KB where I arranged for one module (Marriage and Family Life) to be taught using PBL materials that I devised. Data were collected via a mixed-method approach combining qualitative and quantitative data. Qualitative data were collected by observing classes prior to implementing PBL and during the PBL module, and through semi-structured interviews with students, teachers and curriculum specialists. Quantitative data were collected via questionnaires issued to students before and after the implementation of PBL, and via student self-evaluation forms. This research design allowed me to triangulate data thus helping me to understand the topic in depth and validate the findings as it enabled me to answer questions that would be difficult to answer using only one method.

1.5 Outline of the Thesis

This thesis consists of nine chapters. Chapter 1 has provided an outline of the thesis, including the rationale for the study as well as the aims and research questions. Chapter 2 examines education in KB in general and IE in secondary level in particular, as well as Islamic beliefs and principals. Chapter 3 reviews the literature relevant to PBL and examines constructivism as a framework for PBL as pedagogy. The PBL module which I designed to conduct my primary research is explained in Chapter 4. The discussion of the methodology of this research is explained in Chapter 5. Chapters 6, 7 and 8 present and analyse the research findings in response to the research questions. Chapter 9 finalises the thesis with conclusions and further recommendations.

Chapter Two

The Educational System of the Kingdom of Bahrain and the Islamic Education Curriculum

2.1 Introduction

This chapter explores the attributes and historical progression of the modern Bahraini educational system, the composition of the Islamic Education Curriculum, and the influence of IE within the Kingdom of Bahrain. For the purpose of clarity this is presented in three separate sections. Firstly, the advent of modern-day Bahrain and how its system of education has evolved is discussed. Secondly, the objectives and pedagogy of IE within primarily Islamic countries are investigated. Finally, there is an examination of the IE curriculum in KB, in particular, concentrating on the secondary level of IE and including analyses of the existing difficulties and concerns challenging IE in the Kingdom of Bahrain; this is undertaken in order to evaluate the potential of PBL to meet the learning objectives of IE in KB.

2.2 Part One: The context of Kingdom of Bahrain (KB)

2.2.1 The Geographical and Historical Background of the Kingdom of Bahrain

This section discusses the geography and history of KB, including size, location, population, and the main religion in KB. This is carried out to provide a context for the study.

KB is a small island covering 295.5 square miles, located in Asia. It is situated close to the western Arabian Gulf. The Qatar peninsula lies across the Gulf of Bahrain to the south-east, while to the west the King Fahd Bridge connects it to Saudi Arabia. Iran is located 124 miles north (Abdullah & Zine El Abidine, 2009).

In 2010 the population was listed at 1,234,571 by the Organization Central Informatics (2010) KB is divided into four separate administrative districts, each controlled by a governor. These are the Capital governorate, the Muharraq governorate, the Northern governorate, and the Southern governorate. As noted by Abdullah and Zine El Abidine(2009), up until the late 1960s, Bahrain

was under British control, finally gaining independence in 1971.In 2002, the State of Bahrain was declared and, following a referendum known as the National Action Charter, its title was amended to the Kingdom of Bahrain (referred to as KB in this study).

In addition to being a founding member of the Cooperation Council for the Arab States of the Gulf (GCC), according to the Gulf Centre for Development Policies (GCDP) (2014), KB has membership in the United Nations, the Arab League, and the Organization of the Islamic Conference (OIC).Due to the advantages of its location and harbours, KB has long established itself as a strategic core for trade within the Arabian Gulf, and the entire Arabian Peninsula. The Bahrain World Trade Centre and the Bahrain Financial Harbour are just two of the numerous financial buildings located in the capital city Manama. This has contributed to its ranking of 48th in the world Human Development Index, and it is acknowledgement from the World Bank as having a high-income economy.

According to Abdul-Wahab (2014), Islam is an intrinsic component in KB, and Bahraini society consists of Sunni and Shi'a Muslims. KB is governed by a royal family; there is no elected government in place. Thus, the education policy in KB and curriculum design in schools and universities is influenced by the Sunni sect because the monarchy is Sunni.

Despite its small size, KB is generally affluent, modern, has a good infra-structure, good public transport, and good access to technology and health care. The main language is Arabic and the second language is English .The next section displays the development of education in KB.

2.2.2 The impact of the discovery of oil on the economy and education of the Kingdom of Bahrain

The development of the economy and education in KB has been greatly influenced since the discovery of oil. According to Abdul-Wahab (2014), and Al-Tamimi (2004), Bahrain's industrial progress actually began in 1932 with the discovery of oil, being the first Gulf State to do so. Previously, KB's main sources of trade came from the surrounding oceans, such as fishing and collecting pearls to be sold in the renowned markets of India. Since the discovery of oil, however, the standard of living and level of disposable income rose sharply, shifting KB from a society of consumption to a society of production. It also saw changes in demographic make-up, principles, and social behaviours of the population. Al-Tamimi (2004) discusses the evolution of

the educational system in KB, observing that prior to 1920 the only source of education was through basic, unstructured schools known as "Katätib". In the 1920s and 1930s the formation of modern education systems began to develop, and with the influx of funds from the discovery of oil, this development escalated at a rapid pace. It is universally recognised that the enhancements to the educational system is one of the chief advantages of the discovery of oil in KB.

The rate of development has increased rapidly since World War II and the demands that it brought. Al-Tamimi (2004) noted that unfortunately at the time of the discovery of oil, Bahrain did not have any strategic or scientific plans primed to manage their new finding. Due to the new massive growth in cash flow that Bahrain experienced, it was in a position to apportion large amounts of funding to its education, health, and other social service budgets. The economic boost from the oil industry propelled KB into rapid socio-economic progression.

Since the discovery of oil, the government of KB struggled with the fact that in order for the progress of their country to succeed, it was necessary to cultivate the knowledge and skills of the population. Therefore, KB attempted to establish a highly educated and qualified populace in all divisions of their economy, by creating a framework of educational objectives and strategies. Al-Tamimi (2004) recognised a flaw in their system, asserting that it solely targeted employment in government activities.

2.3 The Educational System in the Kingdom of Bahrain

This section investigates the development of education in KB by tracing the origins of Bahraini education, its formalization, and progression to its current condition.

According to Alkhalifa (1999) the first school was established in the KB was the missionary elementary girls' school in 1899, and the one which was for boys was established in 1902 in Manama by the American Dutch reformed church. Further, the first formal school in KB was established in 1919 in the city of Muharraq; which at that time was the capital. That school, however, was known as the 'Hidayah School for boys'. It was managed by the National Committee and funded by donations provided by the residents of the city (Hassan, 2013).This school was established following the conclusion of World War I, as KB recognised the need for changes to their society and educational development. Prior to this, education in KB was very

traditional, but wholly inadequate for a thriving civilisation. It consisted solely of home learning of the Quran from the Al-Mutawa (the person who teaches the Quran).

In 1921, a second Hidayah School for boys was established in KB. It was located in the city of Manama on large premises, which was originally utilised as the headquarters of an American hospital during the war. By 1927, two further Hidayah schools had been founded in the cities of Al-Had and East Riffa respectively. This brought the total of Hidayah Schools in KB to four. According to Al-Hamad (1992), apart from the Hidayah School in Muharraq, the schools all later changed their names to their individual cities. These schools were exclusively for male students. As documented by Al-Hamad (1992) and Hussain (2004), the first school for girls was instituted in 1928 and was named "Grand Khadija School". This was established following recognition of the importance of educating girls, although it did cause controversy at the time because it conflicted with normative cultural attitudes. Despite this, levels of female education have sustained growth since then.

The MoE took direct control of education in all the schools mentioned above in 1930, following a series of budgetary and organisational difficulties experienced by the National Committee overseeing education. 1939 saw the inaugural government school of KB, situated in Manama. It was originally named Manama College; however this was later changed to the Secondary School of Manama for boys.

Al-Hamad (1992) explains that from 1984 to 1985 there were 83,604 students in education in 134 schools at three levels (primary, intermediate and secondary) in KB, which indicates that the majority of students attended schools. In 2004, a scheme called "King Hamad Schools of the Future" was introduced into the system of education in KB; this was primarily concerned with technological developments, and in particular e-learning. According to the (Ministry of Education, 2013a), by the year 2013 the number of students in education in KB had increased to 128,741 and in total there were 206 schools. This was due to population increase and the advent of compulsory education for boys and girls.

There are different types of schools in KB other than state schools, including private schools and religious schools. The first types of private school were established, managed and funded by persons or institutions located in KB, in accordance with the state school curriculum or specific

school curriculum that is accepted by the MoE. These schools also include various educational stages from kindergarten, primary and intermediate, to secondary. Islamic education classes are taught to all Muslim students. Another category of private school is schools for foreign communities; these schools are created and financed by foreign communities in KB in order to teach their children only, such as “St Christopher’s School” under the policy of the British embassy. Religious schools are managed by the MoE and only admit boys .They take the same direction as primary and secondary education in general, in terms of the number of years of study, where students study different subjects but focus on Islamic religious studies with the aim of giving men a decent level of experience in matters of religion. In the light of developments in the field of religious education, religious schools for the Shi’a sect were opened at the start of the academic year 2002/2003. The curriculum in these religious schools matches the syllabus of Government schools with the exception of the Islamic education curriculum, which adds material according to Shi’a beliefs (Ministry of Education, 2015a).

The MoE employs curriculum experts in each discipline, who develop educational resources and syllabuses, and compose textbooks covering all subjects of the curriculum, with collaboration from University Professors. These textbooks cover three educational levels, Primary School, Intermediate School, and Secondary School. These are then produced by the MoE and provided free of charge to all students at the beginning of each academic year (Ministry of Education, 2008). The Civil Service Bureau of KB (2002) details the role of teachers ;it states that teachers do not have input into the formation of the curriculum or the composing of textbooks, which differs from the United Kingdom, where teachers are consulted on such matters. Their task is to ensure the implementation of the strategies of the MoE through teaching the curriculum in such a way that independent thinking by their students is encouraged. All schools are single sex girls’ schools only employ female teachers and boys’ schools only employ male teachers, apart from some boys’ primary schools which employ both sexes (Al-Hamad, 1992).

The escalations in numbers of students and schools, is due to the government seeing the value of compulsory free education. Additionally, the establishment of private schools has been encouraged. In addition, the development of educational quality is due to the improvement of the aims of the educational system in KB.

2.3.1 Aims of General Education in the Kingdom of Bahrain

The MoE has introduced a declaration of their goals for improving and developing the educational system in KB, known as the *General Objectives of Education*. The Ministry of Education (2013b) published its mission statement in Arabic language, which I have translated into English:

> The Ministry of Education seeks to develop effective education system to reach a high degree of excellence and creativity. This vision emanates from the Islamic religion's lofty principles and values, and the Kingdom of Bahrain's interaction with human civilization and its Arab community to satisfy the requirements of continuous development that conforms with international standards, as stated in the Kingdom's constitution

As previously mentioned, the aims of the MoE stemmed from the constitution of KB. This provided the framework for their policies and strategies. There are five main goals:

1. Cultivate a students' individual personality in order to prepare them for life after education, so that they have the ability to contribute to the betterment of the Kingdom of Bahrain through their lives and professions. They must also be adept in critical thinking, creativity and innovation so as to augment their society politically, economically and socially.
2. Prepare the student's ability to keep abreast of technological and scientific advances in order to educate themselves of future changes.
3. Impel the learning approach to adopt effective strategies for the concept of lifelong work. Adapt the curriculum to fit the requirements of learning.
4. Tailor the curriculum to allow for a balance between education, work, and downtime.
5. Adapt the curriculum to fit the requirements of the economy of KB.
6. Foster students with high potential, creativity, and talent and support and encourage them through educational and tutoring programmes (Ministry of Education, 2008).

Considering these detailed objectives of the MoE, it is clear to see that they are highly concerned with maintaining a continuously developing system of education, through the nurturing of students, who will subsequently contribute to the betterment of the society and economy of KB.

2.3.2 The Stages of General Education in the Kingdom of Bahrain

As previously mentioned, in KB there are three core stages of education. Currently only the Primary and Intermediate levels are compulsory, and are classed as Basic Education. KB provides all three stages gratis to both Bahraini nationals and non-nationals. Furthermore, pre-school is available in KB. This precedes Primary education and is for children who are not yet of age i.e. under six years old. There are presently two stages of Pre-School(Ministry of Education, 2013a) :

1. The Incubation Period – this caters to children from birth up to three years old.
2. Kindergarten – this is intended for children between the ages of three and six.

2.3.2.1 Primary School (Ages 6 to 12)

Children in KB attend Primary School from the age of six, for a total of six years, up to the age of twelve. According to the MoE (2013a), the basis of education for these formative years is to provide the children with a sense of their own identity and surroundings, to instil a level of knowledge and religious teaching that is necessary to progress to the Intermediate stage of education, and to foster their consciousness of ethics, values, and spirituality. The curriculum consists of fundamental topics such as IE, geography, mathematics and Arabic. Although some competences in areas such as reading, writing, painting, music and sports may have been touched upon previously in Kindergarten, it is in Primary School that they are first contained in the official curriculum.

2.3.2.2 Intermediate Education (Ages 12 to 14)

Intermediate Schooling follows Primary School, when the student is 12 years of age. As this is the final compulsory level of education, the objectives of an Intermediate school are two-fold: Firstly, preparing students for advancing to Secondary Education, and secondly, if the student is not advancing to this third stage, Intermediate Schooling is responsible for cultivating their technical abilities or manual skills in order to further their studies in these fields. The MoE present students with an Intermediate Certificate upon completion of their Intermediate Education; this concludes their Basic Education (Ministry of Education 2013a).

2.3.2.3 Secondary Education (Ages 15 to 17) consolidation routes

Secondary Education is undertaken from the ages of fifteen to seventeen. A student must have an Intermediate Certificate (or equivalent) in order to enrol in Secondary Education. It continues in the same vein as that of Basic Education in the Primary and Intermediate stages.

The MoE (2015a)states that a total of 182 authorised Credit Hours must be completed in scientific, commercial, literary or consolidation route subjects so as to obtain a General Certificate of Secondary Education (GCSE). Credit Hours are a system of allowing students to choose from and study a wide range of subjects tailored specifically to their chosen career paths. The Credit Hours scheme in Secondary Education is customised for each individual student in order to prepare them for their futures (Ministry of Education, 2015a).

Of the 182 Credit Hours required to be completed to obtain a General Certificate of Secondary Education, 156 may be counted from the core Grade Point Average (GPA) of a student, while the learning 26 credit hours are not counted in GPA as they are used for working experience. The credit hours are divided into four groups of courses, which are core courses, specialised courses, elective specialised courses and free elective courses (Ministry of Education, 2006)

Core Courses represent 98 Credit Hours, which is 60% of the total necessary to complete Secondary School. The following table depicts subjects included in Core Courses:

Core Subjects	**Number of Credit Hours**	**Number of Periods**
Arabic Language	22	330
English Language	22	330
Islamic Education	10	150
Mathematics	10	150
Science	10	150
Social Subjects	6	90
Physical Education	6	90
Business Culture	4	60
Information Technology and Communication	4	60
Citizenship Education	2	30
Family Education	2	30
Total	**98**	**1470**

Table (1) Distribution of credit hours between subjects in core courses

The above table depicts the relationship between study periods and the Core Courses over the three years of Secondary School. From the table, the ranking of these subjects is clear, with highest importance being placed on the Arabic and English languages, followed by Islamic Education, Mathematics and Science. Core Courses are compulsory, and each student must complete them with the minimum of a pass level in order to obtain their GCSE. The Secondary School day is broken down into six sessions of one hour each.

As MoE (2015b) stated Secondary Schools have schemes of assessment in place in order to appraise the students. These are based on the following:

1. Continuous assessment, both written and oral, of each course executed by the teacher throughout the school year. This equates to 30% of the course's overall final grade.
2. Internal evaluation by means of the students taking a mid-year exam that is prepared by teachers specialising in each subject, overseen by a senior member of the teaching staff. This equates to 20% of the course's overall final grade.
3. External evaluation under the guidance of the Ministry of Education in co-operation with schools throughout the Kingdom of Bahrain. Committees comprised of senior teachers and members of the curriculum board design a standardised examination taken by all students. Schools are regularly inspected by these Committees and the tests are continuously reviewed and evaluated. This equates to 50% of the course's overall final grade.

In order to obtain their GCSE, there are a number of criteria that a student must meet. They must have completed all the stated course requirements, they must have a mark of a minimum of 50% in each subject, and finally, they must have achieved 20% of total marks available of both the Internal and the External Evaluation grades.

The Ministry of Education (2015b)contends that the above is the optimum system for student evaluation, giving two advantages. Firstly, it prepares students for university life as their assessments are carried out comparably to universities in KB. Secondly, students have a range of choices regarding subjects and career paths. Conversely, students who do not obtain a high final GPA will not be accepted to university or institutes of higher education. This system of evaluation is tailored towards high achieving students who have bright prospects for furthering

their education. Certain medical and scientific university courses require higher scores than other fields.

The Ministry of Education (2008) documented the objectives of Secondary Education as follows:

1. To provide students with the ability to further their own education throughout their lives, keeping abreast of research, technological, scientific, and information technology advances.
2. To afford students with the ability to achieve their potential, scientifically and professionally.
3. To foster independent thinking, and the ability to view situations rationally and impartially in order to make beneficial decisions in problematic times.
4. To provide students with the ability to evolve their own knowledge in line with progressions in research, information, communications technology and science.
5. To provide students with the ability to work in collaboration with others, and have a predisposition towards volunteering to serve their communities, both globally and in their own locality.

At its most fundamental, the aim of Secondary Education is to provide life-skills for students to enable them to garner knowledge continuously throughout their lives. This can be clearly observed from the objectives of the MoE in Mentioned in earlier pages. The disadvantage of the objectives is that they are ambiguous and theoretical and there is a lack of a procedure to apply these objectives.

In this regard, in 2011, MoE published literature outlining five steps to implement their educational strategies named the *Teacher's Guide to Teaching and Learning Strategies*(Ministry of Education, 2011b). These steps are as follows:

1. To accomplish success, a teacher must be able to react to individual situations, choosing the most appropriate method to deal with the lesson, grade, place or time.
2. Teachers must stay well-informed of new methods and strategies. As she/he has to improve the students' motivation for learning and collaborative work in the classroom.
3. Teachers must foster an environment of openness and honesty within their class which promotes a culture of students confidently expressing opinions and asking questions.

4. It is necessary for teachers to consider that learning by rote limits the students to only the knowledge provided by the teacher, which does not optimise the students' abilities.
5. Most importantly, the teacher must encourage self-learning as this provides skills which they will bring to their professions and their communities.

The *Teachers' Guide to Teaching and Learning Strategies* states that it is crucial that teachers provide information on thinking strategies in order to nurture the ability to deal with any educational scenario. The document lists the following advantages of teaching thinking strategies:

1. Modern education includes giving students the ability to handle situations and solve difficulties. Teaching thinking aids this by demonstrating to students a number of ways to view an issue, and promotes creativity.
2. Thinking is viewed in the Kingdom of Bahrain as vital to understanding existence and nature as provided by the Creator.
3. Teaching thinking provides life and interaction skills which are vital to communication and problem solving, and analysis of situations. In addition to reading, writing, and arithmetic skills, thinking and reasoning skills are critical to a person's development.

Further to this, the *Teacher's Guide to Teaching and Learning Strategies* discussed the concept of "Desired Education". This is a concept which the MoE promotes as optimising the educational environment. It encompasses a number of ideals, including encouraging interaction between the teacher and student, encouraging collaboration between students, encouraging discussion and debate, applying past experiences and teachings to new concepts or issues, encouraging the students to think about new information, and allowing adequate time for learning. It also cautions that the teacher must maintain control of these discussions, and have the ability to generate different viewpoints from their students. They should have positive time-management skills and use their teaching strategies appropriately.

It is obvious that the MoE in KB places high priority on continuously improving its educational system. Emphasis is on providing students with skills for their futures. The MoE is also concerned with developing students' problem-solving and decision-making abilities and

encourages advancement of students' thinking aptitudes through encouragement to ask questions, create strategies, reach their own conclusions, and be creative. The new evaluation system for KB education, implemented in 2008 and known as the National Authority for Qualifications and Quality Assurance of Education and Training (QQA), aims to develop a world-class education system in KB. Independent from the state, QQA assesses the quality of education and training in KB through reviewing public and private schools, vocational training and higher education institutions for accountability and improvement purposes and advancing Bahrain's reputation as a leader in quality assurance in education, both regionally and internationally(QAA, 2014) .

The *Teacher's Guide to Teaching and Learning Strategies* advocates independent and critical thinking; yet the QQA's reports demonstrate that this isn't actually happening in the classrooms. The QQA has published an online annual report detailing directions for all courses in Bahraini schools. The annual report states (QQA, 2014);

> This contains reports to assess the quality assurance of the institutions concerned as an independent organisation competent in assessing levels of performance, and therefore urges educational and training institutions operating in Kingdom of Bahrain in both the public and private sectors to improve the level of educational and training services, so as to ensure that the requirements of the Bahrain Economic Vision 2030 are met(QQA, 2014).

The annual report of the QQA in (2014) states that the chief disadvantage of the current learning is the inability to reconcile the students' requirements with the teachers' lesson plans, due to the fact that the majority of lesson plans are tailored to the abilities of the average student, meaning that it is too difficult for students with low capabilities, and insufficiently stimulating for higher level students. Also, the learning activities' characteristics are such that students can perform them without thinking or being motivated.

As discussed above, the MoE's objectives have explained fully that students should be given the opportunity to ask questions, solve problems, and apply learning to situations. However, this has not been adopted in schools, which, according to the QQA report, leave students unmotivated and underperforming. Thus, the question is: have the aims of the MoE been adopted in the

educational environment? It seems that these objectives are only theoretical, as the QQA reported; no application has put in place.

2.4 Conclusion

This section has provided a contextual background of the socio-economic and cultural features of Bahrain, particularly since the boom of the oil economy. It has traced the development of state education since this period, and highlighted the objectives that the MoE intends to implement throughout the nation. It has also critiqued the MOE's ability to action these intentions. My research is inspired by the aims of KB's educational policy to enhance students' independent thinking skills, and sets out to discover if PBL can effectively operationalize these aims in IE. In Chapter Two, Part Two, the discussion focuses on Islamic educational systems, their curriculums, and the present issues surrounding Islamic education from theoretical and practical standpoints.

Part Two:
Islamic Education

2.5 Introduction

In order to fully address the research topic it is necessary to review the history of Islamic education (IE), beginning with a definition of the term and followed by charting the various developmental phases IE has undergone. Following this, the fundamental sources of Islam (Quran and Sunnah), which form the basis of the lives of Muslim people, are examined. Next, a short discussion of the various educational institutions found in Islam, from teaching in mosques to contemporary education systems, is presented. Finally, the methodological framework of IE as it connects to the present research is highlighted.

2.5.1 Islamic Education: Definition and Goals

IE is typically a vital component of Islamic nations' school systems. The goal of IE is to strengthen the belief systems of students well into the future. Indeed, Islam is seen by Muslim people as dealing with all areas of existence. According to Mujawir (1976), IE is:

> [A] special form of education that represents the way of life which creates normal human beings and is a way of building personality intellectually and emotionally in order to form individuals with special characteristics which could qualify them to contribute in establishing a civilized and advanced community, all of which is based on proper human behaviour and high moral values.

Therefore, in Islamic nations, IE intends to equip students with knowledge to help them in all areas of their lives. In terms of what is specific to IE, Hanson (2001, p.1, cited in Hussain, 2004)states that " in Islamic civilization, all education theories were based upon the dualistic existence of the human being, both spiritual and corporeal" The primary difference between education in Islamic nations and education in other nations concerns the approach and goal of religious education.

Given the definition of IE, it is argued that its primary goal is to encourage Muslim individuals to be obedient to Allah (Alnahlawy, 1979). Thus, for a Muslim, the most suitable use of knowledge is three-fold: to acknowledge Allah, to live their lives in line with Islamic law and, finally, to satisfy the reasons behind Allah's creation (Halstead, 2004). Consequently, all knowledge that does not help Muslim to pursue these goals is ineffective.

To discuss the role of IE at home, school and in society, Alnahlawy (1979) explains the goals of IE in more detail, listing a number of IE aims, these include: to promote faith in Allah and His prophets, to instil in people the ability to confront real life and bigger social realities, to preserve the religion of Islam, to develop familial love, to develop a love of work and mutual cooperation, to create a feeling of respect between different communities across the globe as a way of promoting openness under the Islamic light, to separate Muslims from traditions and beliefs that conflict with Islam, to instil in Muslims strong morals and to stop communities from deviating from Muslim belief and practice. These aims are applicable to all Muslims in their learning and understanding of Islam in general. IE in classroom teaching in schools however, is subdivided into different subjects that each has its own teaching goals. There is the Holy Quran, the articles of belief (aqida), the words and actions of the prophet Mohammed (al hadith), transactions (muamalat), the biography of the Prophet (serah) and Islamic culture and forms of worship (ibadat). These different elements combine to create an education of Islam that is social, practical, emotional and spiritual in nature (Alnahlawy, 1979). In addition, these topics help Muslims to satisfy the most fundamental objective of IE: to live in accordance with Allah.

In Islam, the Quran and the reports of the Prophet Mohammed (PBUH), known as the Sunnah, are considered to be two main sources of Islam for all Muslims. In addition, for IE there are two associated aspects: theoretical and practical. The theoretical elements of IE are made up of different religious information, principles, facts, ideas and moral values, all of which Muslims are expected to ascribe to. These elements come together to form the Islamic Creed. The practical component deals with the behaviours that Muslims are expected to undertake in their daily lives, for example, fasting over Ramadan and praying five times daily (Aqatash and Aumary, 2010).

In Islam, as in all religions, faith is the foundation stone on which all else is built. Faith is not merely the fact of believing that a certain principle is true, it is also the recognition that religious

principles are the foundation for real-world actions (Tribune, 2013). In Islam, faith is the belief in Tawheed, or the Oneness of Allah, expressed in the Kalima (literally 'word') of 'Laa ilaaha illa Allaah'; this expression can be translated as 'there is no deity but God'. This belief lies at the very heart of Islam (ibid).

2.5.2 The Development of Education in Islam

IE has developed overtime; it was originally taught in mosques and developed to be taught in schools, institutions and universities. Many problems are raised due to changes in life and Muslims solve these problems using Islamic sources such as the Quran and Sunnah.

In the Islamic faith, the concept of teaching Islam arose when the first verse was revealed to Mohammed (PBUH) "Recite in the name of your Lord who created -– Created man from a clinging substance -– Recite, and your Lord is the most Generous – Who taught by the pen Taught man that which he knew not" (Quran, 96:1-5).Since then, IE has passed through different stages.

Since the time of the Prophet Muhammad (PBUH) up to today, mosques have played a vital role in IE in terms of teaching and learning. However, the core education has shifted from mosques to schools as a result of development and changes in all sectors of life in most Islamic countries. In its earliest form, IE was taught by the Prophet as he was the only source of Islamic knowledge at that time. This teaching was on a regular basis including weekly speeches in the mosque of the Prophet Mohammed (PBUH), these occurred every Friday and on special occasions, for example, during festivals and pilgrimages. Therefore, ever since the earliest days of Islam IE has been highly valued. IE has gradually evolved to become an academic subject taught in schools, institutes and universities (Umary & Mousa, 1992). IE in KB was formerly solely focused on teaching the Quran by Imam in mosques, it then transformed to being taught as a complete subject in schools in 1919 (Alkhalifa, 1999). Bahrain, as a Muslim country, teaches IE in informal educational settings such as mosques and recitation centres, and formal educational settings such as schools and universities. Attendance in the formal setting is compulsory and based on curriculum design, while in the informal setting this is not applied, however the aim of both settings is to increase faith (Alkhalifa, 1999). Explaining the phrase "increase faith" from an Islamic point of view carries many meanings: to have a strong belief and trust in Allah and being

comfortable, satisfied and always grateful of all Allah's gifts. Faith is impossible to measure in some other cultures; such as the western societies, so it is not possible to use it with verbs such as "increase". The following Quranic Verse carries the meaning of "increasing faith": "Whenever there cometh down A Sura, some of them say: "Which of you has had His faith increased by it?" Yea, those believe, - Their faith is increased, And they do rejoice." (Quran 9: 124). The basic goal of IE is to improve a Muslim's psychological, behavioural and intellectual capacities so that they are better able to live in accordance with the principles and laws of Islam.

It is vital to note that the development of IE is based on two primary educational sources; the Quran and the Sunnah, as mentioned earlier. The Quran is not solely a religious text but also provides a structure intended to organise all elements and fields of a nation's existence(Ahmed, 1990). It is the task of the Sunnah to illuminate the Islamic laws referred to in the Quran as well as additional provisions of Islam that do not appear in the Quranic text (Alnahlawy,1979). For instance, precisely how prayer is to be carried out is not explained in the Quran, it is the Sunnah that clarifies how one should pray.

Islam teaches that the contents of the Quran and Sunnah cannot be changed or twisted by humans. They are beneficial for every place and time, but the application of the contents differs depending on changes of life, such as globalisation and technology. According to Alnahlawy (1979), IE is subject to development and modification to cope with the requirements of current situations without departing from the contents of Quran and Sunnah. As a result, Muslims should be able to confront new issues that arise in relation to Islam by understanding how to apply Islamic resolutions to novel problems.

Sheik (2011) claims that it is neither fair nor right to re-examine the previous Islamic provisions in isolation from contemporary reality. New technologies, for example, have a big impact on being a Muslim in the modern world, and this requires Muslims to apply critical thinking to reach contemporary solutions. For example, the relatively recent innovation of accessible air travel presents Muslims with the problem of how to identify the location of the Kiblah if they need to do their prayers whilst in flight. Because Islam teaches that the contents of the Quran and Sunnah cannot be changed, the novel circumstances of contemporary times do not change the provisions of Islamic law. Thus, independent thinking in Islam can be applied in the modern

world. In this way, every facet of the lives of Muslims can be governed by the principles of Islam, making every action an act of worship (Halstead, 2004).

In contrast, according to Halstead (2004) secularists argue that no religion can objectively be determined to be true. Additionally, they propose free debate and critical thinking as optimal methods for furthering the pursuit of faith. As Halstead (2004, p. 522) points out, Islamic educators believe there is no a distinction between knowledge that is 'acquired' and knowledge that is 'revealed'. Despite this, debate and critical thinking are not absent from Islam, but are a necessary part of it so that Muslims can work out how to live their faith fully in contemporary times. The purpose of IE is to help Muslims understand and live the ontological truth of Islam to its fullest extent in their contemporary lives. This is in sharp contrast to secular forms of religious studies (e.g. in many UK schools and universities).In secular education, religions are studied as interesting social phenomena, without necessarily accepting their truth claims, as Halstead argued above.

2.5.3 The Methodological Framework of Islamic Education

The private and public lives of Muslims are governed by the general moral and educational principles espoused by Islam. 'Din al-Islam' is the Quranic term for Islam. Most often it is simply translated as 'religion' but it in fact refers to all aspects of the lives of human beings .The four main Islamic principles are: The first is Quran asks people to think logically and to investigate and reflect on different viewpoints as a way of understanding events. The second holds the notion that Islamic provisions are achieved by Muslims themselves in order to enhance faith. The third is, in some cases, some provisions are extracted through a comprehensive understanding of the text of the Hadith. The final one is the concept of responsibility in terms of life and people. Those four principles out of many, as being the base of the Quran and Sunnah, are selected in this study. It will be shown that Muslims believe that the principles of IE are founded on reason and rational belief, which creates a theoretical basis for encouraging reflection and thinking skills. IE provides Muslim people with the ability (and right) to investigate the sources of Sharia law in order to identify the provisions that best apply to them and their situation.

It is important to highlight here that non-Islamic nations and the Western world in particular, sometimes take a rather negative view of Islam. In the West, Islam is sometimes presented as being made up of concepts that encourage blind obedience, making Islam a very limiting religious system that avoids critical, independent and reflective thinking and debate. In terms of teaching, it is argued that the Islamic religion seeks to initiate students into the received truths of Islam; therefore autonomy and independent thought play no part in the Muslim perspective on education (Halstead, 2007). IE does initiate students into the received truths of Islam, however, this does not diminish independent thought; indeed, Muslims have the right to be reflective about their faith.

A straightforward reading of the sources of Islam illustrates the importance of reflective and critical thinking in IE. Thinking skills are important in Islam as they allow Muslims to effectively present the message of their faith to the world. Numerous Quranic verses and texts from the Sunnah discuss the importance of reflecting on nature as a symbol of the glory of Allah. Contemporary Muslim psychologist Badri (1995) has commented that the prevalence of verses focused on reflection is entirely logical given the fact that meditation on Allah's creation, including all of nature and all living things, is the most important act of worship in Islam. Despite the wealth of research, such as Ibrahim(1997),that has been dedicated to investigating the significance of thinking and reflection in the Quran, a gap in research does exist. To date, Islamic education has failed to scientifically explore how thinking skills should be taught or how they should be used in IE. The current study hopes to address this gap in the research by presenting thinking and reflective thinking skills as they exist in the religion of Islam.

The first principle in the Quran asks people to think logically and to investigate and reflect on different viewpoints as a way of understanding events "And they will say, ' If only we had been listening or reasoning, we would not be among the companions of the Blaze' " (Quran 67:10). It has been noted that linguistically there are a range of potential meanings for the expressions found in the Quran. These potential meanings suggest that if humans could successfully reflect on the experiences in their lives, they would be able to see that the Quran includes a range of scientific discoveries that can enable humans to better comprehend the world around them (Ibn Qayyim al-Jawziyyah,1985).In studying the linguistic style of the Quran, Ibn Qayyim al-Jawziyyah (1985) also argues that it is vital for people to reflect as this will allow for a fuller

understanding of Islam. To illustrate, the Quran utilises a large amount of metaphors as a means of transmitting knowledge to its readers. It is now understood by Muslim scholars that many of these metaphors relate to modern scientific discoveries and to the natural world and how it works.

In verse 6:125 of the Quran, for instance, an analogy is draw between the mental bewilderment of the unbeliever and the physical strain of moving upwards towards the sky: “So whoever Allah wants to guide - He expands his breast to [contain] Islam; and whoever He wants to misguide - He makes his breast tight and constricted as though he were climbing into the sky. Thus does Allah place defilement upon those who do not believe.”

A first reading of this verse appears to indicate the negation of free will. However, when reading the verse in context its purpose is the revelation that Allah is in control of all of creation. Nonetheless, what is important in the current discussion is the reference to ‘climbing up to the sky’ as creating respiratory difficulty for individuals to such a degree that it eventually becomes impossible for them to breathe: this description accords with scientific understanding of what the body undergoes at high altitudes. While the primary function of the verse is not scientific, it does reveal a path of investigation for the human mind to pursue and inspires people to ask what happens to the human body when it moves upwards towards space.

Early Muslim scholars such as Ibn Kathir in the fourteenth century were not able to fully discern the scientific implications of the verse as the requisite scientific knowledge was not yet available to them (Diyab& Qrquz, 2000). On the other hand, the primary function of the verse is to highlight Allah’s power; for a modern Muslim scientist it may evoke contemplation about high altitudes, even about space, and the effects that different altitudes and even different atmospheric layers have on the human body. This verse on the power of Allah regarding how the body reacts when under pressure, is difficult to understand, especially given that this verse was revealed in the seventh century when the scientific research was not yet revealed(Diyab and Qrquz, 2000).

Diyab and Qrquz (2000) point out that there has been critical analysis of the verses in the Quran dealing with creative thinking; they argue that the revelation of embryo development accords with modern biological study as in the verses of Quran “We created man from an extract of clay. Then We made him as a drop in a place of settlement, firmly fixed. Then We made the drop into

alagah (leech, suspended thing, and blood clot), then We made the *alaqah* in to a *mudghah* (chewed substance)…" (Quran, 23:12-14). In drawing these parallels, Diyab and Qrquz's intention was to show that the Quran confirms modern scientific findings. Instead, whose goal is to highlight that the Quran invites people to think analytically and critically about themselves and the world around them as the basis for rational thought.

In addition to the Quran inviting people to think logically, it also enables Muslims to understand Islamic provisions and to thus come to an independent understanding of what is haram (forbidden) and what is halal (permitted). This second principle of IE holds that Muslims achieve the Islamic provisions by their own intellectuality and intelligence in order to enhance faith, which is the main aim of IE. This principle is achieved by giving students self-independence and freedom to be able to build up more convinced and justified knowledge. This understanding of Islam is not based on what is taught and imparted in school or by parents where students need to reflect on what they have been taught. A verse in the Quran recounts Allah's criticism of a nation that pursued the practices of their ancestors rather than those of Islam: "When it is said to them: 'Follow what Allah revealed:' They said, "Nay! we shall follow the way of our fathers". What even though their fathers were void of wisdom and guidance" (2:170).

This verse focuses on thinking. In other words it highlights the need to analyse and investigate facts to ensure they are rational and within the principles of Islam. The modern world has introduced a number of changes to how people live and Muslims are confronted with the problem of how to apply Islamic principles to ensure they are consciously engaging in actions that constitute the worship of God. For instance, the rapid advancement of technology has had a significant effect on jurisprudence and thus demands legal rulings that reflect changes in technology (Sheik, 2011). Even advancements in transport have had an impact. Sheik (2011) argues that it is inappropriate to review past jurisprudence issues outside of the context of modern reality. Muslim jurists have devoted a lot of time to investigating issues that demand that Muslims draw modern-day solutions from Islamic provisions. Reviewing and debating Islamic law is not problematic in the Muslim faith; past decisions were suitable in their specific context and were not intended to endure (ibid). In this regard, Muslim jurists make contemporary decisions on behalf of Muslims because they have the necessary skills and qualifications. However, every Muslim has a right to understand Islamic sources and be able to make Islamic

provision if he/she has argument and evidence. This allows Muslims to debate Islamic jurists and draw their attention to some points that may be absent in their judgments. Thus, every Muslim should have the opportunity to deeply understand Islamic provision and apply it thoughtfully.

Thus, the teaching of jurisprudence should choose modern methods, attaining the objectives of Fiqh which stands for "Knowledge of the rulings from the detailed evidence which is the Holy Quran, Sunnah, unanimously and analogy '*ijma* and *qiyas*' "(Danasory, 2009). In this regard, techniques such as problem-solving exercises place the learner at the core of the teaching process and thus work to grow thinking skills and teamwork and to promote the practices of transactions and worship (Solomon, 1998).

Consequently, the Islamic provisions allow for more than one solution at a particular event and lead to more than one Islamic provision, which is the third principle of Islamic Education. An incident that occurred at the time of the Prophet (PBUH) showed that potentially there is more than one provision in one issue. For example, the Hadith (The words and deeds of the prophet Mohammed), Narrated Ibn `Umar: When the Prophet (PBUH) returned from the battle of Al-Ahzab (The confederates), he said to us, "None should offer the ASR prayer but at Bani Quraiza." The ASR prayer became due for some of them on the way. Some of them decided not to offer the Salat (Prayers) but at Bani Quraiza while others decided to offer the Salat on the spot and said that the intention of the Prophet (PBUH) was not what the former party had understood. When that was told to the Prophet (PBUH), he did not blame anyone of them (Sahih al-Bukhari, n.d)

Muslims scholars looked at the Hadith above as proof of having more than one provision in some situations "argument on the same evidence". Some scholars taking evidence from the Quran and Sunnah follow the vocabulary of the Hadith as it comes in the Quran and Sunnah. On the other hand, other scholars extracted the provisions through analogy which was based on the understanding of the text of the Hadith. They argued that the companions at the time of the Prophet (PBUH) concluded more than one Islamic provision, for which the Prophet (PBUH) did not reprimand them. This example shows clearly that Muslims are not only permitted, but encouraged to look deeply into the evidence of the prime resources of Islam and that more than one provision may be acceptable.

The final principle of IE is the concept of responsibility. In Arabic, this responsibility towards others, the environment, and Allah, is known as takleef. In this regard, Ibn 'Umar reports the words of the prophet Mohammed in the Riyad al-Salihin as follows: ‘All of you are guardians and are responsible for your subjects. The ruler is a guardian and responsible for his subjects; the man is a guardian of his family; the woman is guardian in her husband's house and responsible for her wards; a servant is guardian of his master's property and responsible for his ward. So all of you are guardians and are responsible for your subjects’ (Al-Bukhari and Muslim, n.d).

The Islamic legal and Sharia law is informed by these four vital principles. As a result, the experience of education in a person’s life is vital, as people are responsible for shaping and moulding themselves into the type of being that is worthy of the love of Allah. The primary way in which this learning process is achieved is through the use of skills relating to thinking and to questioning.

Questioning and experimentation are significant for compliance to Allah. For example, the Quran tells the story of the prophet Abraham (PBUH) who asked Allah to show him how he revives the dead. The Quran explains how Allah wanted to teach his prophet a practical lesson so he ordered him to cut four birds into pieces and spread these pieces on mountain tops, and then to call them and they would come alive. Prophet Abraham (PBUH) did what he was told, and through this ‘experiment’ saw how Allah is able to revive all the creatures after death on the day of justice. As mentioned in the Quran And [mention] when Abraham said, "My Lord, show me how You give life to the dead." [Allah] said, "Have you not believed?" He said, "Yes, but [I ask] only that my heart may be satisfied." [Allah] said, "Take four birds and commit them to yourself. Then [after slaughtering them] put on each hill a portion of them; then call them - they will come [flying] to you in haste. And know that Allah is exalted in Might and Wise." (2: 260).

It is understood from the verses in the Quran that the ultimate certainty (strong belief) is the peak of faith by questioning and not worshipping and praying for forgiveness. Thus the answer from Allah is encouraging Prophet Abraham (PBUH) to create and configure the answer. He was trained through complex mental operations based on observation and experiment, but in the end he reached the conclusion by himself. In short, this story reflects how Islam is not a religion that persists worshiping only, but it encourages thinking, questioning and experimentations.

In general, the principles of IE reflect the fundamental objective of teaching Muslims about key elements of Islamic belief and culture to enable them to reflect and think about how best to apply the principles, provisions and values of Islam to their modern lives. Furthermore, IE informs students about the significance placed on thinking by the primary sources of the Islamic faith. In essence, Islam teaches Muslims to reflect on and to think independently about the Islamic value system.

In conclusion, it can be seen that IE presents a valuable means for improving students' skills and ethical character. Through IE, Muslims are able to establish a clear understanding of Islam and how to live a good and valuable life. Nonetheless, the IE curriculum must be continually reviewed and improved upon to remain effective. This includes the criteria that determine what content is taught, as well as complementary issues such as teaching methods and materials and teacher training. The purpose of the current study is to reveal how the principles of the Quran and Sunnah can help students to reflect on the teachings of Islam in an effort to improve their understanding of the faith and to teach them the thinking skills they need to effectively deal with their present and future lives.

The third section of this chapter investigates the educational philosophy that underpins IE, in particular in KB. It explores the central elements that need to be developed so that Bahrain's MoE IE goals can be met.

Part Three:
Islamic Education in the Kingdom of Bahrain

2.6 Introduction

This section begins with a brief outline of IE as it exists in KB Secondary Schools and how IE in KB can be improved is investigated. To complement the discussion about how IE can be enhanced; a number of published studies on IE in the context of KB and other Gulf nations are presented.

2.6.1 The Place of Islamic Education in the Education System of Kingdom of Bahrain

In KB, IE is highly significant because of what it intends to achieve: to provide students with guidance and ethical development in all aspects of life so that they can become contributing members of society.

The core subjects are given numbers and names: (101 “Islamic Creed”, 103 “Quran and Sunnah”,104 “Islamic and contemporary issues” and 201 “Provisions of the family in Islam”), with other subjects for those pursuing the literary education pathway (211 “Quran and Sunnah2” and 212 “Islamic system”). In addition, there are a number of elective subjects (321 “Sharia and Fiqh”, 322 “Transactions”, 323 “Islamic civilization and culture” and 324 “Studies of biography”) which students can take for extra credit. The Ministry of Education (2003) explains that by providing a range of core and elective subjects, students are provided with flexibility of choice and are able to pursue further study in Islam (Ministry of Education, 2006).

In 2011, the MoE released its latest issue of the proposed goals of IE (2011), providing a list of general targets for IE modules at Secondary education level. The goals that students are expected to achieve through studying IE relate to three specific areas: 1) values and behaviour; 2) knowledge; and 3) skills.

In terms of value and behaviour there are seven key goals:

1. To develop students' allegiance to Allah and pride in Islam as a system of belief and way of life, as well as to create a sense of belonging to the homeland and a willingness to make sacrifices for the sake of the homeland, its protection, and its connection with Islam.

2. To create a feeling of pride in relation to the Islamic nation whilst promoting openness towards international communities so that global advances in technology and science can be exploited.

3. To reinforce allegiance to the Prophet Mohammed (PBUH), his relatives and followers, and explore the part Muslim scholars have played throughout human history.

4. To strengthen the values of solidarity, tolerance and understanding, voluntary work and the responsible use of leisure time to better one's community.

5. To highlight the importance of the family, the duty owed to relatives and the value of maintaining connections with different social institutions.

6. To establish an awareness of the need to protect and care for the environment, to utilise all possible energies in the universe and to fully appreciate Allah's creation.

7. To establish a strong awareness of the importance of the physical and mental health of the individual and the need to protect one's relatives and society from harm.

With regard to knowledge, the goals of IE are: to increase students' knowledge of Islam as a monotheistic faith, to ensure students understand the core principles of Islam and how these are incorporated into society and to recognise the need for pure faith; to uphold students' relationship with the Quran and Sunnah through in-depth study; to examine the political, educational, social and economic systems in Islam with a focus on how these can be adapted to current changes and challenges; to familiarise students with the basic provisions of Islam governing personal and financial affairs.

Finally, in terms of skills, IE seeks to teach students how to conduct research and to engage in self-directed learning as well as to maintain contact with Islamic reference and legal texts. It also seeks to encourage self-confidence, teamwork, independent thought and action and respect of

others' ideas. The third goal in this area is to use media tools to call people to Islam and to broadcast the wisdom and principles of the religion. A further goal is to strengthen students against deviant ideas and negative social trends, including violence and extremism. Finally, IE seeks to identify solutions to existing social issues caused by social, scientific, economic and cultural changes and to understand these issues.

From the discussion above about values and behaviour, knowledge and skills, it can be seen that the goals of IE are cognitive, affective and psychological. IE textbooks must be aligned with all of the aforementioned goals. To design my own PBL module, I began to investigate how textbooks present lessons based on my observations and professional experience as a classroom teacher and teacher-trainer. The current textbooks used, such as 201 "Provisions of the family in Islam and", 104 "Islamic and contemporary issues" are instructive in nature and provide a literal definition of a particular subject area based on Islamic law. Additionally, evidence from the Quran and Hadith is presented to explain the Islamic perspective on the subjects addressed. This form of textbook limits the teaching process to a number of questions in the form of recalling information only. In IE students need to acquire knowledge and understand it in order to form their own opinions and reflect on their own thinking. However, the importance of thoughtful contemplation and independent thinking is overlooked by IE curricula as it currently stands.

The text books do not provide sufficient scope for students to exercise independent thinking. According to my initial inspiration that PBL might help to develop students' independent thinking skills more than the current text books, it was necessary for me to create new lesson plans. These had to directly relate to topics that align with the MoE's goals for IE. The Ministry of Education (2011b) emphasises that Bahrain's general educational policy is founded on Islamic values and its primary goal is to ensure that these values are taught and practiced. It can be concluded that the correct teaching of Islam is not guaranteed simply by the inclusion of religious education in schools. The full and correct teaching of Islam can only be achieved if the curriculum for religious education aligns with students' skills, personal interests and independent and rational thinking in understanding their religion.

2.6.2 Previous Studies in Islamic Education

My literature search revealed there are few published systematic investigations or evaluations of IE in the Arabian Gulf for different educational levels in general. In KB in particular there were no studies focusing on the development of IE teaching methods. One study by Ahmed (1993) reveals that students' comprehension levels in the Al-Figh module of IE in KB decreased significantly in grade 9. Ahmed's research involved a quantitative study that measured students' levels of comprehension in Al-Figh modules. Ahmed (1993) found that in terms of Al-Figh, knowledge, understanding and application levels were well below the required 50% standard proposed by the MoE.

The legislation and curricula adopted by the nations of the Cooperation Council for the Arab States of the Gulf, including KB, reflect comparable teaching styles. Alsaif (1996) and Altriki(2008) conducted systematic reviews of the teaching of IE in Secondary schools in Saudi Arabia, and reported that the primary method used in teaching the Sharia was the lecturing approach. This is despite the fact that the lecturing method is considered insufficiently interesting and motivating as a teaching style by schools in the Arabian Gulf. In Altriki's (2008) study, students were exposed to a new teaching method and their performance before and after the teaching experiment were measured. Based on the results, Altriki (2008) argued that to effectively develop students' thinking skills they must be exposed to teaching practices based on problem-solving. The study by Altriki (2008) is relevant here in terms of its investigation into problem-solving, but not in relation to the introduction of autonomous learning processes. The process of solving a problem in PBL in the current study gives the student the autonomy to solve real life problems.

Another study by Al-Hudhayfi (2002) from the King Saud University School of Education in Saudi Arabia has also highlighted the inadequacies of education in the Arab Gulf Council. Al-Hudhayfi (2002) found that compulsory education in Arab Gulf nations embraces conventional teaching methods such as lecturing, making teaching inadequate and unable to contribute meaningfully to the personal development of students.

The literature reveals that the teaching methods employed to teach IE in KB and other Arab Gulf states are focused on memorisation and are not sufficiently interesting or challenging for

students. Furthermore, this approach does not put the student at the centre of the teaching and learning process. Thus, a new student-centred approach needs to be introduced to give students autonomy over their study, which allows and encourages them to think critically and pushes them to reach their true potential. In brief, to improve IE in Bahrain, teaching styles that encourage the use of higher thinking skills in students must be adopted. Also, an enhanced range of activities designed to hone critical thinking skills is needed and the IE curriculum must allow for individual differences between students.

The objectives of IE of secondary schools in KB coincide with the goals of problem-based learning presented here, e.g. developing decision-making and critical thinking skills and encouraging self-confidence. This study can also be used as a resource for problem-based learning in IE in Bahrain.

2.6.3 Conclusion

In this chapter, the history of KB has been used as a means through which to discuss the country's current education system. Focusing on Secondary school education, this chapter presented the basic elements of Bahrain's mandatory education system. The basic educational principles underpinning IE have also been presented. It was shown that these principles are intended to encourage thinking and reflection among Muslim students in order to develop their compliance with Allah and their ability to cope with the complexities of everyday life. In addition, this chapter provided an outline of the structure and content of IE in Bahrain and the challenges IE is currently facing. The following section explores the literature surrounding problem-based learning (PBL) to show how PBL can be used to achieve the aims of IE in Secondary school teaching in KB.

Chapter Three
Literature Review

3.1 Introduction

This chapter surveys and critically evaluates published sources about PBL in order to review the foundation of present knowledge and to identify gaps in the study of PBL. This helps to indicate the direction that my research takes to address some of these gaps, and so also helps to justify my research questions. The major themes reviewed in this chapter are: what is PBL?, the process of PBL, the utilization of PBL in various fields, the theoretical framework of PBL and the application of PBL in Islamic Education. Through the literature analysed in this chapter, various means for the implementation of PBL are discussed to clearly show how the practices utilized in my study are drawn from a broader context and, in turn, to identify how PBL applies in the specific context of IE in KB.

3.2 Problem Based Learning (PBL)

This section presents the background and founding of PBL .The important characteristics that differentiate PBL from other means of learning are examined, followed by an exploration of the importance of PBL. The literature review outcomes from this section informed the orientation of some of the interview questions and observations in KB context.

3.2.1 What is PBL?

The motive for transferring learning from a conventional to a PBL approach started in medical schools in Canada and spread into a wide range of education disciplines. In this approach students learn through applying self-directed learning, where the “problem” is the stimulus for the learning. PBL focuses on individual responsibility, merging of theory and practice, and self and peer assessment. Replacing the tutor’s assessment of learning outcomes with students’ problem solving skills and critical thinking, results in changing the role of the teacher from instructor to facilitator; students are placed at the centre of learning process working in groups

with peers. Outlining these key features of PBL has raised my awareness of it in terms of applying it in the new context of IE in KB.

Problem solving is inherent and has been part of what makes us human since the earliest times; however, during the 1960s, PBL began to be defined as a specific pedagogy (Evensen & Hmelo, 2008). At the end of the 1960s, the Canadian McMaster University's Medical Faculty implemented PBL as staff there perceived it to be an innovative approach that had the ability to improve the process and results of education (Evensen & Hmelo, 2008; Boud & Feletti, 1999; Bessant *et al.*, 2013).The Canadian McMaster University made changes to medical education, as the 21stcentury placed a requirement on students to apply their knowledge to real life problems and coordinate with others; learning is a lifelong process and research into new aspects of interest reflects on-going learning (Evensen & Hmelo, 2008).These reasons are parallel with my research considering PBL in KB education as required by the MoE.

Medical schools in Canada introduced the PBL approach, and in recent years it has been utilised by other domains in education such as administrations (Bridges & Hallinger, 1995), pre-service teacher-training (Casey & Howson, 1993) and in schools at all levels. Numerous educational facilities now employ the PBL approach and its growing popularity has recently attracted a great deal of attention in tertiary education (Anthony & Abdul Kadir, 2012a). Evensen and Hmelo (2008) have found evidence that PBL is being applied in schools with students working as a group to solve problems, study new subjects of interest, and reflect upon how they learn at all levels. Delise (1997) claims that students need to simultaneously develop their problem solving skills and thinking abilities from kindergarten to grade twelve, and be able to study the data presented using the application of these skills.

The fundamental concept behind PBL is that learning should begin with a problem, puzzle, or query, and the students' aim is to find a solution to the problem (Boud, 1985). White (1996)and Savin-Baden and Major (2004)state that PBL is any method of learning where the learning is motivated by the need to solve a problem, Boud and Feletti (1999) define PBL as "an approach to structuring the curriculum which involves confronting students with problems from practice which provide a stimulus for learning."(1999:15). In PBL, students achieve knowledge by themselves as they get involved in the discovery of the problem, which motivates them towards

learning. These are the two fundamental characteristics of PBL. The first fundamental focus is on a problem as a stimulus of learning, while the second fundamental focus is on the student as the centre of learning. My own research is inspired by both of these characteristics.

It is observed that PBL allows students to take responsibility for their learning and success in the learning programme (Boud, 1985; Boud & Feletti, 1999).Moreover, it gives students the opportunity to incorporate theory and practice when applying a problem to real life situations (Boud 1985; Australian Horticultural Correspondence Schools (ACS), 2014).This is why the problem sets are fundamental as they are based on real life situations and employed to initiate the learning process when working as part of a team. This could strengthen the correlation between theory and practice when applying problem solving skills to similar situations.

An additional feature highlighted in the literature by Boud (1985) and Boud and Feletti (1999) on PBL, is that learning outcomes should be evaluated through self and peer assessment; this is a vital factor and needs to be given greater attention in the learning process. Additionally, ACS (2014) puts more emphasis on evaluating students' performance rather than the perfection of students' responses.

Another feature of PBL is related to the curriculum, as emphasized by ACS (2014) and Schmidt et al. (2011) who state that curriculum structures need to be planned according to problems or distinctive cases. More features are explored by Boud (1985) and ACS (2014) who emphasize the learning process and how students approach a particular activity using problem solving skills and critical thinking to find out an appropriate solution to the problem. As a result, a teacher's role as facilitator should replace the instructor role of the teacher, as this encourages students to be involved autonomously in the learning process (Boud, 1985; Boud & Feletti, 1999; ACS, 2014; Schmidt et al.2011).A teacher however, should put in place a guideline which outlines the techniques which need to be applied by students to complete a task in solving problems (Delise, 1997). Another feature identified by Boud (1985) focuses on effective communication skills and interpersonal skills, as stated, these skills are required by students in order to transmit their knowledge and become effective communicators.

Barrows (1985, 1988) (Cited in Hmelo & Evensen, 2008 p. 4) describes what is generally accepted as the "classic version" of PBL; this can be labelled as the standard model, with variant

characteristics springing from it as a paradigm with two features: student-centred learning and a complex problem that provides students with free inquiry. The groups of students are only provided with the problem, the requirements of the answer, and the deadline for completing the task in a student-centred problem-based learning environment (Hmelo and Evensen, 2008; Savin- Baden and Major, 2004; Abdul Razzak 2012; Bessant et al.2013). The students are responsible for determining their learning issues and creating a learning process that will accomplish their objectives. Consequently, the focus shifts from being solely on the gathering of new knowledge to the generation of the skills necessary for life-long learning. Lectures presented to a large class are replaced by problem-based learning in small groups (Hmelo & Evensen, 2008). Reviewing the characteristics of PBL provides an outline for the current research. The outline offers me ideas for the application of PBL, which are categorised for further investigation of its appropriateness to IE in KB. A PBL approach was implemented in this study which entailed the collection of "problems" through the presentation of a set of logical questions by the teacher. The majority of these "problems" were court cases.

3.2.2 The Importance of PBL

The application of PBL is vital in real lives. Employing PBL encourages students to think independently and learn to individually solve problems. PBL is used at different educational levels where teaching thinking skills and problem solving skills aims to increase students' performance in their learning (Delise, 1997; Al-Shaibani et al., 2003; Abu-Hijleh et al, 2004; Abdul Razzak, 2012). These parallel with the goals of the MoE (2013b) of preparing students to be critical thinkers, imaginative and innovative, which will lead them to be good citizens and develop KB.

The 21stcentury workplace demands professionals who are extremely knowledgeable and have the skills needed to keep their knowledge current, to solve problems and to work as part of a team (Hmelo & Evensen, 2008; Delise, 1997). Building knowledge, problem solving and critical thinking by using PBL prepares students for future jobs. The PBL curriculum trains them to gain knowledge effectively and solve real life situations during learning in school and their personal life as well (Delise, 1997).

Australian Horticultural Correspondence School (2014) in its guideline for PBL stated that a number of forward-thinking and successful universities around the world have started to adopt the problem-based learning approach. Graduates, who were educated by this system, generally outperform their counterparts from conventional classroom-based courses by progressing faster and achieving more in their careers. This is evidenced by Smith, et al. (1995)who state that the abilities that will be utilised throughout vocational life are encouraged by PBL. It enhances the students' enjoyment by introducing teamwork and giving them motivation to learn (ibid).

White (1996), and Closson (2011) in their PBL case studies in higher education observed that the purpose of PBL is to give an individual the ability to think critically and be capable of analysing and solving complex practical problems. Additionally, White (1996) confirmed that the core importance of PBL is 'self-directed learning' that boosts students' self-responsibility for learning.

PBL has also been adopted in schools, Muijs and Reynolds (2011), have argued that nowadays increasing attention is being paid in schools to the teaching of thinking skills and problem-solving skills. Prins et al. (2006; cited in Muijs &Reynolds, 2011) have researched this phenomenon and concluded that students with good thinking skills can generally perform better, thus, they considered these skills to be more essential than just learning the difficult parts of a specific subject.

As a result, problem-solving skills give learners the chance to cope with the problems of life. Cramond, Marin and Shaw (1990, cited in Sewell et al. 2002) have stated that the behaviour of solving a problem is an ideal source of effective and critical thinking. Individuals must be aware that such skills are within themselves so that they can utilise them beyond the classroom, such as in their professional lives (ibid).

The properties of PBL have encouraged me to trial the PBL approach in IE in KB, because it focuses on how students gain knowledge by themselves in order to apply it thoroughly in their lives. Furthermore, the literature shows that PBL encourages individual responsibility, problem solving skills and inserts practice into learning, which is missing in the classroom in KB, as mentioned in the annual report of QQA (detailed in section 2.6.2).The next section examines

four models of PBL which were applied in different disciplines and countries in order to settle on a particular model of PBL suitable for IE in KB which hopes to respond to the MoE and IE aims.

3.2.3 Problem Based Learning Process

The process of PBL highlights a particular method of obtaining comprehension in a particular subject (Schmidt et al., 2011). As part of the PBL approach, students learn how to obtain knowledge or the 'product of inquiry' and how to research a subject (Margetson, 1997). Moore (2011) emphasises defining the problem and solution, and engaging its critical investigation as the 'facilitator method' by encouraging the students to strive toward the completion of the aims of PBL. Schmidt et al., (2011) claimed that to accomplish the aims of the course and the pursuit and derivation of knowledge, PBL encourages the implementation of the students' current knowledge. A hypothesis that describes the situation set out in the problem is collectively derived by expanding upon the students' current knowledge and by exercising their minds; the students are able to create cognitive constructs that assist in the understanding of new data and its long term retention (ibid). The constructivist perspective agrees with this idea and holds the view that learning occurs when the students play a role in the acquisition of new knowledge and control the input to direct what they learn (Savery & Duffy, 1995). PBL models provide students with a careful process to follow, but this actually gives the students a lot of freedom to be able to succeed. A carefully staged process enables students to avoid dead ends and prevents them from skipping stages without constructing a sound foundation (Delise, 1997). Schmidt et al. (2008) found that the objective of the PBL process is to ensure the students develop a more comprehensive understanding of the problem's underlying processes and mechanisms.

This section, however, offers a comparative analysis of four PBL models in different areas and subjects with a particular focus on how each model manages the progressional stages of PBL. This includes the PBL process in undergraduate Biochemistry in the United Kingdom, the PBL process in chemistry and mathematics in high schools in the United States, the PBL process in IE in a primary school in Jordan and the PBL process in university medical courses in the Netherlands. These processes are highlighted in order to find out the differences between the applications of PBL in different subjects and areas, and to identify an appropriate structure that can be applied in IE in KB. Smith et al. (1995) draw an outline of the PBL process:

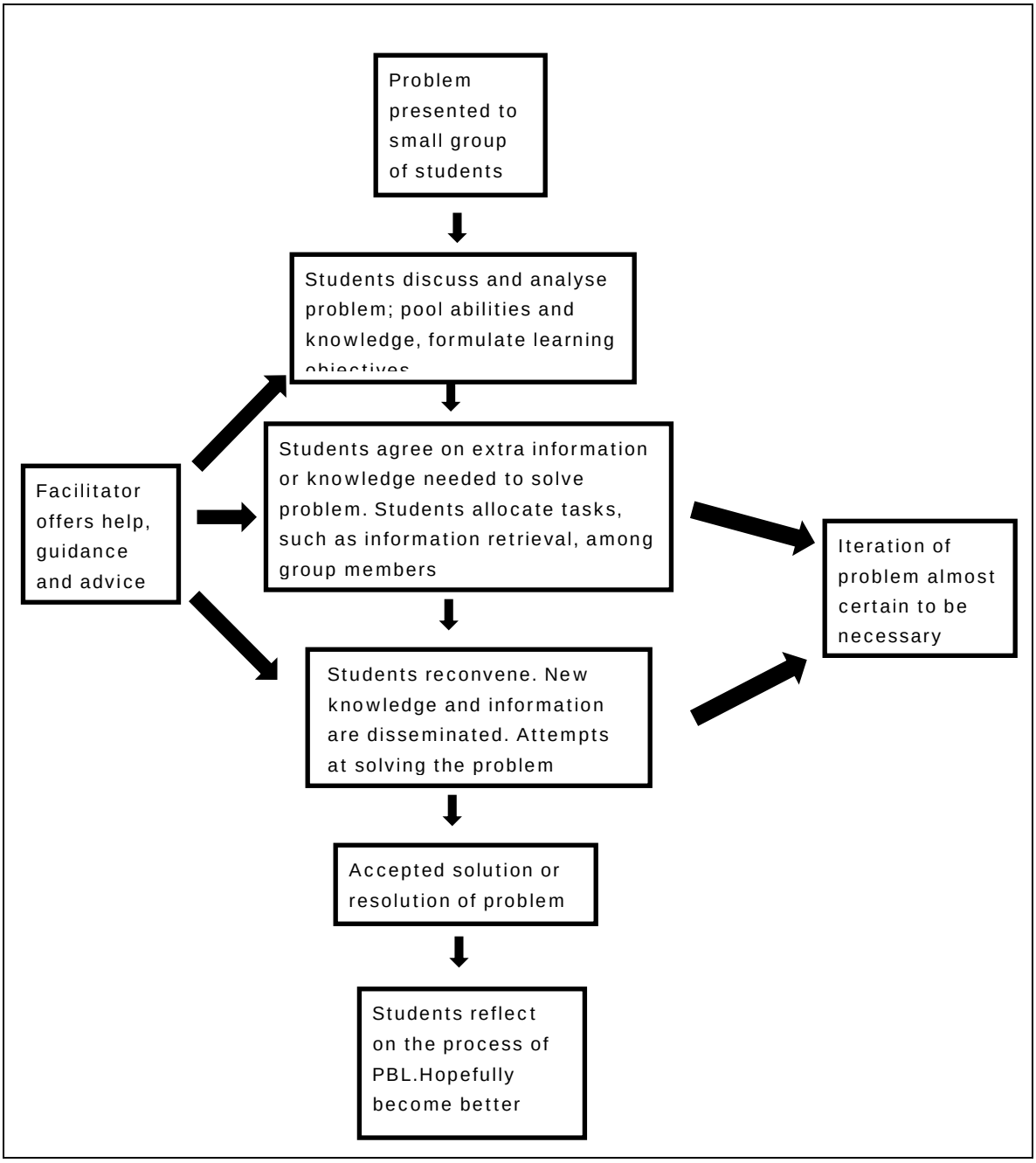


Figure (1)An overview of the application of the PBL process (Smith et al., 1995 p. 150)

Smith's PBL model in undergraduate Biochemistry Education in the United Kingdom operates: introduces tasks in sequence order to increase students' confidence and problem solving skills.

Straightforward questions need to be designed to build towards more difficult problem solving questions. Smith et al. (1995) explain that the process at the starting point of PBL is to demonstrate a problem to a small assembly of students. The problem demonstrated should be 'realistic' as well as something that the students are highly likely to encounter during their future careers. The objective of the group is to critically analyse the problem by acquiring definitions, providing concepts, and understanding the problem in detail. Possible solutions and learning objectives are created and will be agreed accordingly. It is possible for the groups to have prior knowledge of the subject where a student with the relevant knowledge will be selected by the group to solve a part of the problem. All group members need to communicate with one another in order to share ideas and be able to gain new knowledge and, through collaboration, new solutions will then be suggested. Such a process is repeated until an optimum solution to the problem is reached. There will be around 2 to 5 members of staff supervising the entire process and they will act as facilitators rather than solution providers.

Delise (1997) suggests that the structure used in applying PBL has taken the following process of discovering the problem, creating the structure, analysing the problem, reanalysing the problem, creating a resolution or product and assessing the problem. The process is considered as a guide who does not restrict or limit a student's ability to think. The importance of this process is to allow students to think of each step before moving to the next in order to collect appropriate information that leads to the best solution to the problem. The process investigated in his research was also being effectively utilized in high schools in chemistry and mathematics across the United States.

Another study of the PBL process in a different discipline, Islamic Education, was described by Kotammei (2004).She suggested the process of a PBL to be applied in primary school in Jordan as shown below:

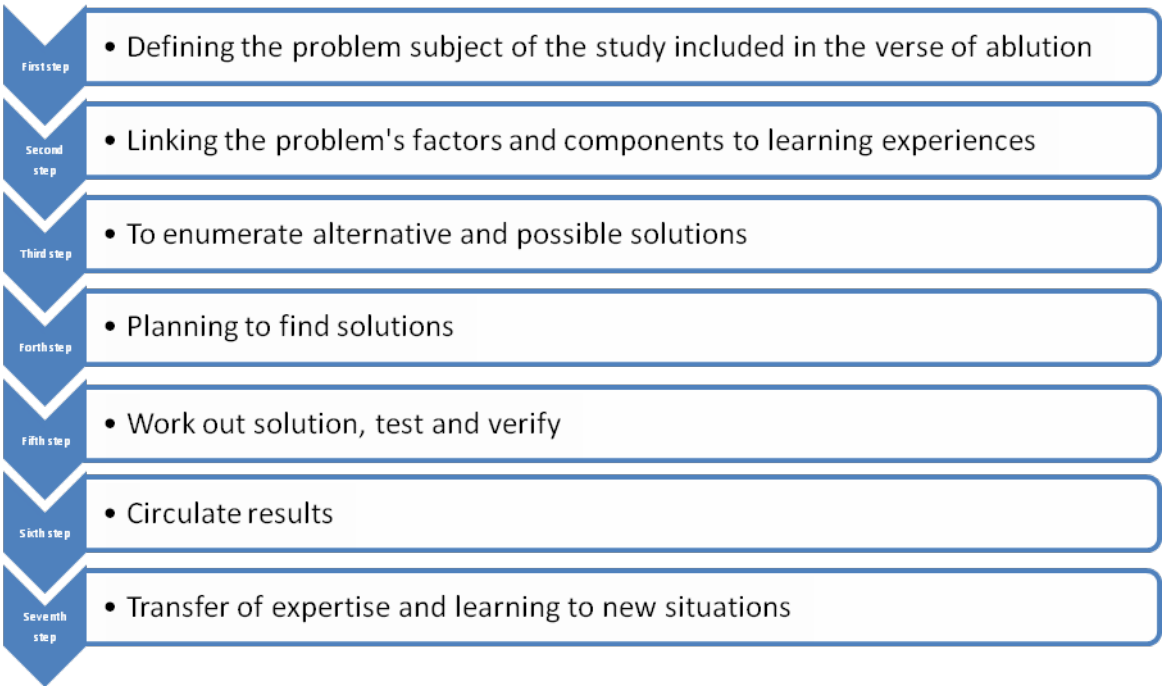


Figure (2)The process of PBL as demonstrated by Kotammei (2004,p. 55)

Kotammei believes that PBL is a suitable process for Islamic Education. The PBL process suggested by Kotammei provides effective skills that can be applied to solve real life situations. She believes that students are the centre of the learning. Students take the objective of solving the problem and can apply it in new situations in life. The teacher in this context is a facilitator providing an appropriate environment for the learning to take place. However, the lesson suggested by her (how to perform ablutions) uses a deep analysis of grammatical structure which is beyond a primary school's level of education. In addition, the process outlined by Kotammei limits the verses of the Quran whilst not giving the learner the chance to find out the appropriate verses to solve out the problem autonomously. Moreover, Kotammei in this study has not mentioned how students managed this process either as individuals or in groups.

On the other hand, Schmidt and Moust (2008) demonstrate that many Dutch Maastricht Institutions have adopted the PBL approach in their medical courses. Figure 3 outlines the "Seven Jumps" of PBL used by Dutch Maastricht institutions.

1	Clarify unknown terms and concepts in the problem description.
2	Define the problem; that is, list the phenomena to be explained.
3	Analyse the problem; "brainstorm"; try to produce as many different explanations for the phenomena as you can. Use prior knowledge and common sense.
4	Criticize the explanations proposed and try to produce a coherent description of the processes that, according to what you think, underlie the phenomena.
5	Formulate learning issues for SDL [self-directed learning].
6	Fill the gaps in your knowledge through self-study.
7	Share your findings with your group and try to integrate the knowledge acquired into a comprehensive explanation for the phenomena. Check whether you know enough now.

Figure (3) The presentation of the 'Seven Jump' PBL process as identified by Schmidt and Moust (2008, p. 23).

Figure 3 above shows that the learning process begins with a problem. The students are provided with a problem to debate in a small team. The team debates the problem by using a particular method that they were instructed in not long after they began a PBL course. This method is called a "Seven Jump." The Seven Jump comprises of seven stages that must be completed by the team to obtain the greatest educational benefit from the problem. The students will then expand upon their initial conclusion and critically analyse the knowledge they do and do not possess. The final step is to derive their learning challenges and engage in self-directed learning (SDL). The team meets after a couple of days of SDL to share and integrate their findings and apply them to the initial problem.

Step	Smith et al. (1995) (Biochemistry)	Delise (1997) (Chemistry and Maths)	Kotammei (2004) (Islamic Education)	Schmidt and Moust(2008) (Medical)
1	A small team of students are presented with a problem.	Discovering with the problem.	Defining the problem subject of the study included in the verse of ablution	Explain unknown terms and conceptions in the problem
2	Students debate and assess the problem; they create learning goals by sharing their abilities.	Creating a structure by finding the ideas, facts and learning issues.	Linking problem's factors and components to learning experiences.	Describe the problem.
3	Students determine the additional data necessary to the resolution of the problem. They assign tasks including data collection to team members.	Analysing the problem in order to determine resources needed.	To enumerate alternative and possible solutions.	Problem analysing.
4	Students meet and exchange new data before attempting to solve the problem.	Revisit the problem in order to reanalyse the problem.	Planning to find solutions.	Criticize the clarifications proposed and attempt to produce a clear explanation of the processes
5	The solution to the problem is accepted.	A resolution or product is created.	Workout solution, tested and verified	Frame learning for SDL
Ad5a			Circulate results	Fill the gaps in the knowledge
6	Students assess the PBL process	The problem and its solution are assessed.	Transfer of expertise and learning to new situations	Discuss the findings with group and try to assimilate the knowledge acquired into an inclusive description

Table (2) the terminology employed by various academics to depict the PBL approach.

From the table above, it can be seen that the PBL process in medicine focuses on understanding the terms and concepts in the first step while the other models using biochemistry, chemistry and maths focus on discovering the problem. The different levels at which PBL was applied in these studies, i.e. primary, secondary and higher education might affect the steps taken as well as these steps being affected by the subject matter. In IE however, the first step was defining the problem in students own words, while connecting the problem was employed in the second step of the

process. In the third step, the science subjects determined the resources needed to solve the problem while IE focused on the solution and substitutes of the solution because the resources needed were determined in the first step of the process. The discussion of the problem in the fourth step of PBL processes agree across the four models. In the fifth step, the PBL process in IE focused on the circulation of the results whilst in the medical subjects it focuses on filling gaps of missing information in the knowledge. In the last step, all processes agree on discussing the final solutions based on understanding the problems.

Kotammei's (2004) in her research in Islamic Education weighting different solutions; Kotammei model due to the introduction of an additional process of weighing alternative evidence before the weighting of the solutions. However, students need to be trained to use an order sequence and weight evidence by themselves in order to find the appropriate Islamic provision. On the other hand, Kotammei provided the students with evidence at the first stage, and encouraged them to draw their own conclusions about Islamic provisions. On this basis, the other three modules – Biochemistry Smith (1995), Chemistry and Maths Delise (1997), and medicine Schmidt and Moust (2008) – focused on discovering the missing information before the final stage.

The four models of the process of PBL outlined above are arranged in a linear manner at first glance, the stages of the PBL process have different natures, and utilized specific terminology based on their subject areas. I used the four models discussed above as a basis for the PBL module utilised in my study, discussed in the next chapter (P.92). The PBL process was modified to meet the students' level of education in school and the policy of the MoE in KB.

Dolmans et al. (2005) state that while the execution of the PBL process shows considerable variation, it does have three core traits: First, the learning is stimulated by a problem, second, the learning is facilitated by tutors, and finally, the students work in small teams. Closson (2011) states that PBL has two features: learning as part of a group and student-centred learning. However, Li (2012)includes another feature: that the content of the course is presented as a series of problems to be solved rather than placed in a textbook. In essence, the four primary features of PBL are: Problems as a stimulus for learning, the role of the facilitator, student centred learning, and team work, the above features are discussed below.

3.2.4 Problems as a stimulus for learning

The learning process in PBL is based on a problem. The word 'problem' has numerous connotations and associations including case, scenario, puzzlement and inquiry (Savery & Duffy, 1995). The definition of a problem in the PBL educational approach, however, is dependent on the educational domain that it is provided under and context given (Abdullah, 2006).Problems have two traits: first, there is an unknown factor; second, it contains a value that resolves the unknown (Jonassen, 2000). Jonassen observes that every problem is unique to the students when they first encounter it, and therefore cannot be solved by rote.

According to Saven-Baden and Major (2004) the problem should be formatted in such a way that the students will wish to approach it rather than seeing it as a negative challenge, achieving the solutions should feel like fun. They state that problem design must take into account the balance that must be maintained between students' expertise and processing skills such as problem resolution and teamwork. A humorous, non-technical problem scenario is often a helpful introduction for new problem-based learning students, as this will not threaten or alienate them (ibid).

ACS (2013) explained that one of the conditions of the "problem" is that the students need to be provided with a real world situation and there are a range of methods for doing this. The creation of a problem statement is one of these methods. Photographs and illustrations may be included in the problem statement as necessary. Making the problem realistic encourages students to enjoy and get involved in real life experiences. Constructivists feel that the application of a hands-on approach and using materials from real life is superior to textbook learning (Muijs & Reynolds, 2011).

In their study, Schmidt et al. (2011) employed a 'micro-analytical' methodology, which is analysed in a number of recent studies such as Albanese and Mitchell (1993), to examine what occurs when students work with PBL. This methodology was employed to track the process of the PBL approach in the classroom setting in schools, such as biology in high school. In several recent investigations they claimed that the majority of the studies on the problems presented in PBL are centred on what the students and teachers deem to be a good problem. The consensus derived from these studies is that a problem needs to: i) be grounded in reality, ii) be suitable for

the students' existing level of knowledge, iii) draw the students into debate, iv) result in the determination of the correct learning issues, v) encourage self-directed learning (SDL) and finally, be engaging (Schmidt et al. 2011p.795). They state that the findings indicate that participants who were presented with a familiar problem considered the quality of the problem to be superior compared to participants who were presented with an unfamiliar problem. They state that the writers of the problems felt that the problems could be enhanced by increasing their relevance to the everyday lives of the students. Hung (2006) believes that successful knowledge transfer will be more likely if the problems that students are presented with are situated within their profession and extend beyond an academic setting. This will also encourage students to engage with the problem effectively and cognitively. Students' engagement in PBL should be correlated to their level of familiarity with the problem. The PBL results are also related to the perceived traits of the problem (familiarity and authenticity). The quality of the small team debate is affected by the quality of the problem, which also influences the students' interest in the assignment and the amount of time they spend on self-directed study (Schmidt et al., 2011).

As a result, students' learning in PBL is affected by the problem's traits, including how the problem results in the determination of the correct learning challenges. Dolmans et al. (2005) suggests that a good problem should help students recognise the learning challenges referenced by the creators of the problem when they formulated it. Schmidt et al. (2011) found that the problems could have situational interest which motivates learning.

3.2.5 The role of the facilitator

In PBL, facilitation refers to the role played by the teacher in instruction and education in the present study context. It covers various factors including their role in the classroom and how they engage in the instruction and education process. PBL uses a teacher known as a facilitator who supports the work team; the teacher's role is to assist the students' learning processes and to encourage them to work together effectively.

According to Smith (1995), Delise (1997) and ACS (2014), the presence of staff members during PBL involves the facilitation of learning rather than the sourcing of information. Moreover, staff members are not necessarily subject experts, and are not expected to add new information in relation to the original problem. In this regard, Saven-Baden (2007) corroborated that effective

facilitators should not limit themselves to asking only one particular type of question, showing interest with body posture and offering students a comfortable learning environment. The facilitator needs to deliver more than that. At the most minimal level, the facilitator is responsible for ensuring efficient teamwork and that the fulfilment of learning needs has taken place.

Schmidt and Moust (2008) argue that during team work the teacher aims to encourage students to clarify their opinions, to expand upon the subject, to provide questions, to search for logical inconsistencies and to think about other options. They state that by fulfilling this role, the tutor encourages the students to order their knowledge, address their misconceptions and identify knowledge that they do not properly comprehend. Dolmans et al. (2005)agree with this approach, and state that teachers in PBL courses are not responsible for sharing knowledge with students; the teacher's role however is to guide students on how to answer their own questions, assist the learning process and offer students feedback. Furthermore, this is not the entirety of the facilitator's responsibilities – he/she is also expected to promote and develop a team culture, to maintain a balance between all team members, and guide students to progress through critical thinking and independent critique (Saven-Baden, 2007).

Bessant et al. (2013), ACS (2014) and Delise (1997) summarize the role of the facilitator in the PBL approach in general. The facilitator provides learners with the necessary learning materials, to monitor, to control and to facilitate the learning process. Moreover, he /she needs to create an open learning atmosphere for the problem-solving based learning, encourage students to present and express their ideas and views and to accept and respect other's opinions, the teacher gives his/her students enough time to process data and to form ideas, but may not push them for learning. Additionally, the facilitator should monitor his/her students during the lesson in order to be certain that they have covered and passed all of the necessary steps and procedures of solving a problem. However, Bessant et al. (2013) and Harden et al.(1999) have added other roles to the facilitator including gathering background data on the subject of the problem. This demonstrates that some researchers believe that teacher-facilitators do not need subject knowledge, while others disagree, as the facilitator should guide their students if requested. A study by Chng et al (2011) of second year students in the department of polytechnic science in Singapore points out another core feature of the tutors' role. This is the behavioural influence of

facilitators with regards to their expertise in the subject-matter, and their social and cognitive congruence on the students' learning process. The finding of this study indicated that the tutor's skills in informal communication with their students create a welcoming learning environment that encourages the free exchange of thoughts. For Schmidt et al's. (2011) 'micro-analytical' approach, the results reveal that teacher expertise has a positive effect on student learning, while other results suggest that it has no observable influence. This apparent contradiction in the results may be because the expertise of the facilitator in the subject matter has a greater influence on the students' learning, where the cues and support provided by resources are unable to lead and guide the students through the process of determining what needs to be researched. In these cases, the students will rely on the facilitator for direction, and a teacher with greater expertise in the subject area and better social skills will be of greater benefit to them.

There are a number of factors that need to be considered when executing this role, including the challenges that a teacher may encounter while implementing PBL as a new style of learning. ACS, (2014) and White, (1996) have revealed a range of challenges:

- Students and teachers may be unwilling to embrace a new model due to their familiarity with conventional models of instruction.
- Teachers who are accustomed to a teacher-centred learning process may find it challenging to adapt to a student-centred one.
- PBL necessitates that the teachers abandon conventional instruction methods and develop new skills.

In contrast, other research has demonstrated that teachers held a positive attitude toward the PBL approach and were willing to continue with it. None of the teachers indicated that they wished to revert to conventional teaching methods instead of facilitating learning, despite the extra work entailed by this process. These teachers, found that new experiences provided a positive challenges and were beneficial to students learning (Anthony & Abdul Kadir, 2012a and Li, 2012).

From the above discussion, it is clear that facilitator-related behaviour has a positive effect on students' accomplishment. In other words, the facilitator's role could offer a new perspective on influencing the process of PBL learning.

3.2.6 Student-centred Learning

Conventional learning methods give students notably different expectations and roles to the problem-based learning approach. According to Savin- Baden and Major (2004), by transitioning from didactic lectures to PBL, students' progress from their primary roles of being passive, to the more complex series of roles that PBL demands. They describe the changes evident in problem-based learning as follows:

- From a passive, unengaged listener, observer and note-taker to an active, independent problem-solver who contributes to discussions and debates;
- From a private closed individual who hazards few or no risks to a public learning individual who is empowered to take several risks;
- From peer competition to open cooperation with one's peers as equals;
- From responsibilities and self-perception of being independent, changing to become interdependent and collective responsibilities and learning processes;
- From seeing teachers and learning texts as the only sources of authority and knowledge to perceiving themselves, their peers and their learning community as additional and significant sources of authority and knowledge.

The students' roles in PBL listed above allow students to be the centre of learning. However, the students need a certain level of maturity and awareness to accomplish the transition to a new approach to learning. ACS (2014) stated that students who are used to being 'spoon fed' and being assessed on their ability to retain data may object to the new method of learning. Samsonov et al., (2006) case study on the utilisation of PBL with at-risk students such as inquisitive and savvy students revealed that almost half of the students experienced boredom in the initial stages of the course. In depth investigation suggests that this was the result of confusion, difficultly coping with the absence of structure, an overwhelming amount of data and an inability to effectively manage their time. An additional study by Anthony and Abdul Kadir (2012a)in PBL found that students were unwilling to accept the changes of roles. To eliminate this attitude towards PBL, they initially introduced students to the new approach through two

weeks training on PBL. This finding agrees with Albanese and Mitchell (1993) who claim that students must understand the process and philosophy of PBL to easily make the required transition . Putting students at the centre of learning helps them to maintain deep learning in which they can think critically and apply knowledge to real life situations (Abdul Razzak, 2012; Atherton, 2013).

3.2.7 Team work

The team's assignment is to debate the problem and discover the various factors of the problem to develop a fuller understanding of the problem. This is achieved by obtaining essential data about the issue, creating possible solutions, finding gaps in knowledge and designing related learning objectives. The team members then complete individual research based on these learning objectives. This performance of students in teams reflects the process of PBL. PBL can be described as a socially formulated pedagogy as participates have the opportunity to be involved in the process of creating knowledge (Bessant et al., 2013) .

PBL has the potential to increase students' pleasure in their learning as they become highly motivated to learn, and it encourages teamwork (Smith et al., 1995). In addition, Savin-Baden and Major (2004) assert that students working and learning in small teams are able to explore problem situations and then utilise this reflection to recognise gaps or absences in their own knowledge and skills, before identifying what new knowledge they should obtain, so they may control and solve the problem situation with which they were originally trusted. The findings of Samsonov et al., (2006) case study on using PBL with at-risk students, suggests that the most effective way for average students to benefit from PBL is when they work in collaboration with above average students because they can benefit from them academically. Saven-Baden and Major (2004) stated that tutors at Lambert University felt that PBL assisted students of every level to build confidence in their experience and effectively utilise their knowledge. As a result, the students' self-direction improved as the course progressed. Another study by Al-kuwaiti (2007) examines in detail the benefits of introducing PBL as a new method of teaching medical education. It indicates that the main factor that contributes to the success of PBL is the shared knowledge created from working in a group.

During group tutorials, students typically adopt a range of roles in relation to different activities that occur within PBL in order to facilitate effective teamwork. In the PBL model processes analysed in this literature, students played the following roles during teamwork: a facilitator, who moderates and maintains the discussion, ensures that other team members stay committed to their tasks, and gives every individual the opportunity to contribute and learn; a researcher, who provides the information required by the group; an encourager, who enhances the team's contributions; a timekeeper, who moves the group forward so they can finish on time; a recorder, who records the group's discussion and writes the panel's findings; a checker, who makes sure all the members of the group comprehend the concepts and reasoning, and issues a wildcard performance for the work of any member missing (Saven-Baden and Major, 2004; Hmelo and Evensen, 2008).

By rotating the role that each person occupies, the students are able to develop the abilities of each role. Everyone has an even chance of engaging in the group debate and guaranteeing that the tutorial accomplishes its goals within the allowed time (Barrows, 1989). Individual strengths are allowed for, to ensure that all of the students in the group hold a position that suits their skills. The members of a team have their own educational objectives; they are all able to participate and benefit from the skills and experiences of their teammates. Albanese (2001) considers this to be cooperative learning; the participants will only accomplish their objectives if the team activities are oriented towards everyone achieving them. He states that the four factors required for cooperative learning are: collective objectives, mutual benefits, shared knowledge and complementary roles. Muijs and Reynolds (2007, p. 69) claim that working in small teams has a disadvantage, as it does not encourage independent learning and it can create dependence on the dominant members of the team. They argued that work in small teams can quickly result in the 'free rider effect' wherein some members of the team depend on other's work and make no contributions of their own. Misconceptions can also be reinforced and depend upon others' work.

In contrast, Schmidt et al. (2011) argued that there were several benefits to the relationships between students and their relationship with the teacher provided through group work. A small work team offers a foundation for the students to create friendships with one another and allows for a closer relationship to develop between the students and their teacher than would be possible in a bigger class. The students are motivated by the peer pressure generated by the regularity of

the small team tutorials in a PBL course, and this encourages the students' diligence and spurs them to meet the deadlines set by the team. It has been found that the non-cognitive side-effect of working in a small team helps prevent students dropping out of school. Imafuku et al.'s (2014) case-study noted that the objective of interdisciplinary PBL is to give students the chance to build the skills necessary to work with various health professionals in a cooperative fashion. This research analysed how Japanese students created knowledge as a group in a tutorial. The findings suggest that knowledge building has two patterns; collaboration between students from different disciplines and expansions by students in the same discipline. Their cultural assumptions, professional identities, comprehension of other professionals and their views of cooperative learning mediated their learning processes. This result indicated that interdisciplinary PBL may be able to improve students' cooperative learning abilities (Imafuku et al., 2014). Building knowledge is more than an individual process. Learning is a social construct that occurs through interactions with parents, teachers and peers. It is beneficial to build a social learning situation by promoting team work and debate.

Ultimately, PBL enhances learning through cooperation in teamwork. Li's (2012) case study implanted PBL in a Taiwanese elementary classroom. He indicates that the procedure of his study was not to inform the students about the reason for being in groups until the last period of PBL intervention, because he wanted them to feel that he was 'working with' them rather than 'doing things' to them. On the other hand, my research did inform students of the reasons for collaborative group work in order to increase the students' awareness of the effectiveness of working together.

This section addressed the four common elements of the PBL approach: the function of the problem, tutor, students and group work. However, the execution of the PBL approach changes based on the philosophy of the educational institution. In this regard, these four elements were emphasised by the MoE in terms of students being the centre of learning, the teachers facilitating the learning process, the relationship between students and their teachers and linking the students with societal issues. Furthermore, IE advocates strengthening relationships between members of the society as well as addressing contemporary problems in order to respond to Muslim questions.

3.3 The Implementation of Problem-based Learning

This section of the literature review demonstrates PBL implementation in many different disciplines including education, mathematics, science and medicine. It consists of two parts. The first part discusses the knowledge, skills and attitudes that arise when utilizing PBL which encourages students to convert data and experience into knowledge, skills and behaviour; as Saven-Baden and Major (2004) claim these are important aspects when assessing PBL. The second part highlights different types of challenges including pedagogy and practice challenges.

3.3.1 Knowledge

Aristotle highlights that knowledge can be seen as "wisdom", "scientific knowledge", "practical insight", "perceptual intuition" and technical "know-how". He added that these types of knowledge can be put together in order to reach a full understanding of human life (Magrini, 2009, p. 2). Every type of knowledge functions in a specific manner to develop experience, understanding, planning, transformation and filtering throughout the processes of education(ibid). Solving problems and using higher order thinking within a small group discussion and debate develops students' exchanged knowledge when applying PBL in the learning process (Blumenfeld et al, 1996). This is supported by another study which revealed that the PBL process employed in a small group can increase the level of learning, which might not happen during conventional classroom methods, this is due to integrating self-regulating learning and group working (Anthony & Abdul Kadir, 2012a). In this context, working in small groups and debating to solve a problem in PBL enhances students' capacity for understanding.

Closson (2011) surveyed published case-studies investigating the effectiveness of PBL in continuing professional education. She claims that during continuing professional education, growth of knowledge among professionals developed. Smith et al. (1995) argue that in PBL, the process of finding a solution is a matter of exploiting the potential of new knowledge by reconsidering one's beliefs to construct and build more influential and solid frameworks and generate new ideas. This is supported by Samsonov et al., (2006) whose study concluded that inquisitive students who researched deeply for information to complete the task were more able to transcribe their writing in detail than the savvy students who used only the necessary information to complete the task. The same study proved that able students with high academic

performance gradually utilized more strategic plans to reach the solution, while strategic learner students did not have the ability to deeply investigate the problem and therefore, applying knowledge had not been conducted. Bereiter and Scardamalia (2008) argue that employing PBL in the classroom to solve problems can be done by analysing and looking at different sources of information relevant to the problem. The PBL approach enables a more efficient, thoughtful application and absorption of knowledge.

However, there is uncertainty about the ability of learners schooled in PBL to cover the subject content. Compared to conventional methods, PBL does not necessarily teach the exam content, but focuses on a particular problem. In short, when standardized exams are employed, conventional methods are preferred as opposed to PBL as a non-standardized exam such as an essay writing and presentations(Vernon & Blake, 1993). This supported by Albanese and Mitchell (1993) who stated that conventional methods are found to be better at covering science content. On the other hand, it is difficult for learners in conventional education to build up a considerable amount of knowledge, while in PBL learners gather relevant knowledge to solve their problem. Although PBL can exhibit gaps in learners' knowledge, it develops long-term retention of knowledge (Farnsworth, 1994). In this regard, long-term retention and retrieving of knowledge meet the MoE policy of IE in secondary education which aims to prepare students to apply gained knowledge in future situations.

It is important to note that prior knowledge plays an important role in constructing knowledge. Schmidt et al., (2011) claim that use of prior knowledge as a base in constructing new knowledge is the first stage of solving a problem which will later be analysed further when students participate within small groups to extract learning issues in order to provide further details to solve the problem. Imafuku et al. (2014) argue that participation can be influenced by different factors such as the group environment, students' social expectations and different opinions. Similarly, Anthony and Abdul Kadir, (2012b) emphasise participation in small group as this supports the utilisation of the students' collective social knowledge as they employ their investigation to solve real life problems. This result is supported by Bongaerts et al. (1995) who claim that variances in prior knowledge activation can result in having different procedures to retrieve the information. According to Dochy et al. (2003), although generally speaking prior knowledge may have a positive effect on students' performance, in some cases, however, it can

have a negative effect or no effect at all on the students' performance. This could be due to the type of assessment used in measuring the students' performance. As confirmed by Dochy et al. (2003), assessing the students' performance with regard to their prior knowledge can be greatly affected by the assessment method.

To sum up, it can be said that engaging students with different experiences throughout their learning process aids in discovering students' capabilities and targets their prior knowledge that can be built upon and applied to real life situations. PBL was observed to help learners adopt different skills, be involved in the learning process, and apply their learning and knowledge. Most importantly, the opportunity to retrieve and retain knowledge was improved when the learning context resembled a real life situation (Owens et al, 2010).

3.3.2 Skills

PBL outcomes involve a great many skills; skill is defined as a "Relatively precise set of manual or mental techniques which though they may depend on aptitude have to be learned through training or schooling" (Scott & Marshall, 2009, p.691).Manual skills do not relate to PBL in the context of this study, which is based on cognitive problem solving rather than manual problem solving. Skills in general need to be learnt by students in order to achieve and master a particular practice. This study places particular emphasis on self-directed learning (SDL), confidence, critical thinking, expressing opinions and respecting other people's views. These four skills are linked directly to the aims of secondary Islamic education as stated in education policy in KB.

The enhancement of independent SDL skills is considered a central objective of PBL (Barrows, 1986). White (1996) confirms the core importance of PBL as engaging students in 'self-directed learning'. In addition, Smith et al. (1995) explained how SDL can be employed in team work in a PBL approach. In Smith et al's study, this was done by allowing students to engage with each other in small groups to work on a problem related to their programmes of study to gain knowledge. The students then described the problem and used their critical analyses to comprehend and research the appropriate solutions that in the end would reach an agreement with other groups. In this regard, Anthony and Abdul Kadir, (2012b) pointed out that students in their study commented that the PBL approach provided them with great autonomy in problem solving during their course of study and employment. In this regard, Scott (2014) presents the

role of facilitator as a model from whom students can learn how to critically analyse and reflect upon the knowledge they have acquired. By offering regular feedback and guidance, the facilitator encourages students to accept responsibility for their learning outcomes. The effectiveness of this approach has been substantiated by the link identified between SDL and facilitation.

Schmidt et al. (2011) commented that during the PBL process, students passed through 3 phases, with every phase greatly influencing the later phases. The first phase is students' prior knowledge which influences learning in analysing the problem, which then affects the second phase which is SDL. SDL greatly affects the third reporting phase. Learning performance at the end will be influenced by the reporting phase. Other studies demonstrated that working together collaboratively in small groups or self-directed learning alone produced inadequate results within the PBL approach. This is evident in Schmidt et al.'s (2011) study that claimed PBL would not give appropriate outcomes from either group collaboration or using individual knowledge attainment in isolation; however, both of these notions attributed similarly to learning in PBL (Schmidt et al. 2011).On the other hand, Pratt (1988) claimed that adult self-directed learning is questionable; Pratt suggests that adult self-directed learning is not a long-lasting characteristic but a situational quality that is dependent on other skills including students' confidence, competence, and commitment. Thus, PBL is a cumulative learning process, where SDL affects group work during the students' group discussion about their SDL findings.

A number of studies reported improvement in students' confidence levels. For example, Anthony and Abdul Kadir (2012b), argued that students' confidence levels were improved in activities done in class which resulted in dynamic engagement and commitment. Furthermore, according to Hmelo-Silver (2004), PBL allows students to become more confident in their contributions and assists them in learning how to overcome learning obstacles that they may encounter. According to Smith et al. (1995), this confidence is achieved if students attempt questions related to the specific problem, mainly when they are working on numerical and practical activities. Using a sequence structure such as rules would be more beneficial in producing confidence that enables students to solve problems (ibid). During their research with nurses, Peterson et al. (1999) observed that results from pre- and post-activity questionnaires indicated positive changes in the nursing homes due to employing a PBL approach; working within groups enabled nurses

to work together and assist each other in finding areas that needed to be altered and evolving strategies for implementation. Using real life situations gives more power to the learning process and allows for engaging with other members of the group. In this respect, Norman and Canada (1990) argued that education should not focus on gaining information, but should focus on the independent knowledge creation through developing problem-solving skills. This can be accomplished by employing PBL.

Another skill outcome from PBL is critical thinking. White (1996), Duch et al. (2001), Closson (2011) and Bessant et al. (2013) observed that the purpose of PBL is to give an individual the ability to think critically and be capable of analysing and solving complex practical problems. On this point, Cottrell (2005) argues that critical thinking is comprised of different capabilities and beliefs; arguments, opinions, demonstrating conclusions and reflecting on diverse topics. Problem-solving skills and performing unorganized structured processes to solve a problem requires intellectual skills such as higher order thinking in order for the student to be an efficient problem solver. Therefore, for students, possessing analytical skills, critical thinking and metacognitive skills is vital (Hung et al,. 2008). Thus, students succeed at PBL in achieving these skills and it plays a role in developing these skills.

Respect of other people's opinions is another skill observed by different studies. Imafuku et al. (2014) in their study reported that good listening skills that involve accepting and respecting other peoples' opinions are vital during teamwork in order to generate a cooperative group environment and to produce an inclusive patient care strategy. This is evident in Besant et al.'s (2013) work which focused on groups of students from Keele university, Manchester university and Staffordshire university in the academic years 2011/12 and 2012/13. Besant et al. reported that 75% of students improved their listening skills and respected other people's opinions during teamwork. This led to students' communication skills being greatly improved and students being able to express their point of view to others.

Students in Anthony and Abdul Kadir's (2012a) study were provided with a task to be completed: they had to describe and justify each student's answer to the other members of the group, giving more weight to his/her listening skills and listening to other students' reasoning. This activity provided an opportunity to simplify their understanding of justifying and listening

to other members of the group. In this activity, students plan their work and shared opinions between themselves. This task allowed students to build their confidence, and reinforce their knowledge and understanding for future activities. It appeared that while the PBL approach was still in place, independence and self-direction within the participants were greatly enhanced. The students became more self-reliant and progressed further, there were also extreme changes in students' behaviours in their learning in language studies (ibid).

Gaining problem-solving skills is a vital development for students' lives that enhances their overall learning. PBL is different to conventional methods, for instance; it exercises students' own thinking skills. Consequently, it is up to the students to use the skills provided to them by PBL; motivation and problem-solving skills play a role in independent thinking and autonomous learning, which parallel the MoE's policy of promoting independent and critical thinking. Additionally, these skills, such as critical thinking and autonomous learning, satisfy the IE rationale where Islam encourages its followers to reflect on their sources (Quran and Sunnah). It is the right of each Muslim to extract the ruling and be able to debate with others based on their understanding to reach final conclusions.

3.3.3 Attitude

The final attribute of PBL that requires discussion is attitude, which Scott and Marshall (2009, p. 29) refer to as:

> An orientation (towards a person, situation, institution or social process) that is held to be indicative of an underlying value or belief, or, among those who insist that attitudes can only be inferred from observed behaviour, as a tendency to act in certain (more or less consistent) way towards persons and situations.

In this study, students' attitude (motivation and engagement) is considered as their personal behaviour during a particular activity. In PBL, changes in students' attitudes towards learning can be assessed by numeric and non-numeric data.

Data obtained in a study by Antony and Abdul Kadir (2012b), indicates that students struggled to adapt to this new system initially, but found the class to be extremely enjoyable over time. As a result, students became more interactive and eager to contribute towards group activities, which

in turn increased their motivation to learn. Similar results were obtained by Imafuku et al. (2014), who analysed student learning outcomes based on a diverse group of professionals from different backgrounds within different medical disciplines; over the course of the study, the group acquired a more favourable attitude towards learning. In addition, the groups' knowledge of one another's professions developed as did their positive attitude towards collaborative learning and the collective exchange of knowledge. In fact, by participating in the study, many learners admitted that working alongside people from different sectors offered them a unique insight into alternative methods of patient treatment. For example, medical and pharmaceutical students typically prioritise knowledge of specific diseases or sources of pain; however, upon completion of the course, they realised that they should also explore aspects of the patient's personal situation and emotional state when devising an appropriate care plan (Imafuku et al., 2014).

According to Schmidt et al. (2011), participation also made it easier for the group and the teacher to maintain regular contact and keep up-to-date with each other's progress. The frequency of the group seminars also increased student motivation as they were forced to satisfy the demands of the group and complete their individual assignments on time. Samsonov et al. (2006) discovered that team members who completed their assignments in advance of the deadline showed a tendency to offer assistance to other less able group members. However, these students declined the offer of assistance in most instances as they subconsciously rejected the idea of being instructed by their peers. Conversely, students were eager to accept help when it was offered by a teacher and even actively sought assistance in some cases. The effectiveness of team work was also reinforced by Besant et al. (2013) who discovered that 80% of students enjoyed participating in team activities and 77% of students felt that their team collaborated effectively on the project.

Scott (2014) explains that existing studies have not adequately addressed how PBL is designed and implemented in the study of human resources (HR). Regarding Scott's claim, there are still other disciplines, as well as HR, which do not study the impact of PBL on learners' attitudes. However, studies mentioned above have revealed that PBL facilitated engaging students in group learning activities, developing a more positive attitude towards the learning process and assisting them in becoming more motivated, committed and eager to contribute. These outcomes of PBL

satisfy the MoE's and IE's aims to cultivate strong relationships between students and others and motivate them towards learning. For instance, a number of verses of the Quran advocate collaboration, Allah said "And cooperate in righteousness and piety, but do not cooperate in sin and aggression" (Quran 5:2). Allah advises Muslims to do good deeds by cooperation; this attitude needs to be encouraged in schools by encouraging students to work in groups.

3.3.4 Critiques and Challenges of PBL

This section introduces critiques of PBL as a learning strategy. These encompass the flaws of PBL itself, and several practical challenges of delivering the PBL model in classes which might affect the effectiveness of students' learning when using PBL.

PBL approach has been critiqued as well as commended. One critique is that the standardised testing of facts does not fit well with the "core values" of PBL in which self-assessment is a central element. It is difficult to assess problem-solving skills, interaction or group work (Pagander & Read, 2014). As discussed before in section (3.3.1), regarding educational achievement, Vernon and Blake (1993) stated that standardized exams are preferred by students learning from conventional methods, and these exams are considered to be better at covering subject content (Albanese & Mitchell, 1993). However, the educational purpose of PBL is to develop skills such as independent thinking and self-confidence and not focus only on curriculum topics .Therefore, alternative assessment methods need to be implemented to measure students' achievements such as essay writing, self-evaluation, peer evaluation, oral examination and report writing which can assess the content retention and skills. Though leaners' knowledge in PBL focuses on specific knowledge related to the problem, it also improves long-term retention of knowledge (Farnsworth, 1994).In regard to context of this study; the MoE in KB applies standardised testing which focuses on the content to assess students' academic achievements and does not aim to assess the students' skills such as confidence. This standardised testing is not compatible with assessing PBL skills.

Insufficient evidence has been provided to prove that PBL is an effective teaching and learning method, arguably it is only useful in a limited range of educational settings. Pagander and Read (2014) claim that research has revealed that stronger students with more developed study skills can thrive in a PBL situation; weaker students whose planning abilities are less evolved find the

teamwork aspect too difficult and tend to become discouraged. An opposing view was taken by Samsonov et al. (2006), namely that the ability of participants and their prior achievements were not relevant when a group was given a PBL task, and that on the contrary, so-called weaker students sometimes showed more effective problem solving skills than their stronger counterparts. Their research also supported one of the core concepts of PBL thinking – positive interaction with others in a team leads to an improvement in students' academic performance and skills – in that it discovered a clear link between supportive teamwork and a successful outcome.

PBL cannot always offer a complete solution to students' individual learning needs. Forrester (2004) used two cases in a Hong Kong school in his critique of PBL learning outcomes. In the first case, when a class teacher presented PBL in a practical application, it became apparent this may benefit learners who flourish during cooperative and cognitive learning. On the other hand, the second case showed that when a class teacher used PBL to solve a problem by employing cooperative learning strategies, the emphasis on cooperative learning activities could have a negative effect on learners who flourish when learning individually. Forrester (2004) reported that in both cases, the outcomes indicated that the choice of teaching style was successful for the majority, but disadvantaged a minority of students. PBL is intrinsically sound in its aims, but is not suited to all students (ibid). Moreover, a study conducted at Bahrain Teacher College (BTC) to by Abdul Razzak (2012), to examine PBL in an educational Psychology classroom, revealed that an issue with a particular student not being engaged in activities could be attributed to his motivational difficulties due to his disinterest in any type of learning.

More debates about PBL are addressed by Pagander and Read (2014), who argued that PBL as it is presently designed is not suitable for sequential learning courses, such as engineering, and needs to be adapted to meet the needs of each specific subject. Some subjects might depend more on rote or content learning of knowledge rather than problem-solving skills based on the nature of the subject, such as teaching Quran hermeneutics, therefore some curricula could combine PBL with other methods. Provan (2011) advocates some simple changes that could be implemented to improve PBL, he proposes that students should be made aware of all the details of the curriculum so they do not have to speculate or research irrelevant material. This could be done in lectures and workshops.

A further critique by Provan (2011), in his article “A critique of problem-based learning at the University of British Columbia” reported concerns about unsatisfactory PBL, which was used in a course where an inexperienced tutor impacted negatively upon a group of students. The students had not received lectures on the week’s topic, and as a result they had insufficient information on the subject area studied to test the hypotheses; their tutor seemed not to know whether the hypothesis put forward was accurate, so students were liable to be misled and reach inaccurate conclusions which could have become entrenched. So tutor preparedness and understanding of PBL are essential for success. This is in line with Mandin et al.'s (1995) study which showed that when students lost their track, they might totally miss the vital content if they were not adequately guided by their teachers. In addition, training tutors in PBL is vital. Neville (1999, cited in Pagander & Read, 2014) emphasizes the importance of competent tutors being given a revised and effective role so that they can facilitate learning. The learning goals planned for PBL will not succeed without a strong tutor to lead the students, and efforts should be made to tailor the curriculum more to PBL. An effective facilitator impacts positively on students’ learning, this was confirmed in my primary data which used two teachers who already had experience in teaching IE, and trained them for their new roles as facilitators. I met with them for four single-hour sessions to explain the PBL module and how it was to be applied, focusing on the new requirements of the role itself.

Formulating the problem is also critical to ensure that essential information in the curriculum is covered. Formulating the problem in PBL should address the aims and objectives of the subject matter that the students need to understand. Dolmans et al.’s (1992) study at the Medical School of the University of Limburg, The Netherlands, revealed students’ achievement in specific problem objectives; they found that many objectives were absent as students became diverted from their studies. However, a study was conducted at the Medical School of Arabian Gulf University in Bahrain by Al-Shaibani et al., (2003) which claimed that when a PBL strategy was employed for curriculum planning and implementation, the faculty-set learning aims and objectives were successfully achieved with the students identifying the objectives and learning issues of the problems. This is in line with the primary data of the study at hand, which revealed positive outcomes in terms of the students identifying the learning issues related to the problem.

On the other hand, changing the students' and teacher's roles through implementing PBL creates a number of challenges during delivery, particularly where students and teachers are familiar and comfortable with more conventional teaching methods. According to Smith et al. (1995), there is a risk that PBL will have an adverse effect on learning outcomes when it is first implemented; According to Anthony and Abdul Kadir (2012b), though students in their study were uneasy about participating in the course initially on account of the PBL approach, as the group progressed, the majority of students adapted to the new learning mode and attended the class (ibid). Li (2012) gives examples in his case study of problems which occurred during the opening stages of PBL courses; typical problems encountered included off-topic discussions in groups, student conflict and general disobedience.

Anthony and Abdul Kadir (2012b) address the implementation problems and highlight the necessity of introducing students to the PBL system in advance. Participants in Anthony and Abdul Kadir's study underwent two weeks of training to familiarise themselves with their new roles as interactive collaborative learners. This was an effective approach to implementation as students were not shocked by new teaching methods but instead were offered advanced training so that they could fully benefit from the collaborative learning experience (Anthony & Abdul Kadir, 2012a).

Studies by Smith et al. (1995) and Imafuku et al. (2014) discovered that teachers also struggled to adapt to the new system as it contravened much of what they had learnt throughout their teaching careers. In addition, many teachers were unhappy about having to engage in skills training and the effort required a teacher to be competent facilitators. Many teachers also felt uneasy as they no longer taught the students in a conventional sense, as they were focused more on prompting the students to learn from one another. This sense of unease was also related to the teachers' perceived loss of authority over their students. Nonetheless, despite these reservations, the teachers were quite satisfied with the PBL approach, despite the increased workload, and had no desire to revert back to more traditional modes of instruction (Imafuku et al., 2014). In fact, though the teachers admitted that a significant amount of preparatory work was required to ensure that the system was effective, it was nonetheless a valuable and enjoyable experience for their students (ibid).

Li (2012) highlighted one instance where a teacher expressed dissatisfaction with PBL; she was finding it difficult to implement PBL protocol as she had such a strong desire to teach. In fact, her traditional tendencies often took over during her classes, albeit unintentionally. For example, during a class that was supposed to focus on group discussion, the teacher merely summarised the progress made so far. Nonetheless, towards the later stages of the course, the teacher had improved her teaching methods and developed ways to ensure that she adhered to the principles of PBL. In addition, she stopped simply offering solutions to students and encouraged them to find answers by communicating and collaborating with their peers. In this way, she began to adopt the role of facilitator. So a conclusion to be drawn from these two papers is that teachers can sometimes find the transition difficult.

Another challenge raised by several other studies, was that PBL requires too much time to achieve maximum effectiveness (Smith et al. 1995 and Closson, 2011). Nonetheless, Owens et al. (2010) discussed how their group saved time by having the whole teaching team contribute towards the case composition of professional development programmes. Furthermore, on account of having group members from different professions, a diverse range of problems were quickly resolved and the resulting case questions were more comprehensive and understandable as they had been evaluated by a diverse range of healthcare professionals (ibid).So, collaborative learning is good for planning.

To sum up, Pagander and Read (2014) concluded that PBL is a method of teaching and learning, alongside many others, which can benefit some students and can enhance the study of certain subjects. They have also concluded that insufficient research has been done, given the ethical limitations, to make an absolute judgment on PBL or to state categorically that it increases knowledge retention. In this regard, my research aims is to explore the ‘reality’ of PBL’s potential in a new context “IE in KB” which would play a key role in KB education reforms and add to the body of research evaluating the effectiveness of PBL.

3.4 The Theoretical framework of problem-based learning and Islamic Education

This section examines constructivism as a theoretical framework for PBL and rationale for IE. It discusses the philosophy, principles, and critiques of constructivism.

This study draws on constructivist ideas regarding the creation of knowledge. Learning, for the constructivist, means to make meaning. So, students consciously attempt to construct meaning. In other words, learning is a procedure of creating knowledge, not acquiring it, which is influenced by the environment surrounding the student.

Constructivism can be examined with regards to three key propositions: i) “Understanding is in our interactions with the environment, ii) Cognitive conflict or puzzlement is the stimulus for learning and determines the organization and nature of what is learned, and iii) Knowledge evolves through social negotiation and through the evaluation of the viability of individual understandings” (Savery & Duffy, 1995, p. 1-2). The relationship between constructivism and PBL is that constructivism is the underlying educational philosophy, and PBL is a practical teaching method based on the theory of the constructivism. According to Savery and Duffy (1995, p. 4-7), the features of PBL which originated with constructivist learning theory are: base all learning activities around a greater task, encourage the learner to develop ownership for the wider problem or task, create a real task, design the task and the learning environment to show the real-world applications of the knowledge gained, provide the learner with ownership of the procedure utilised to create a solution, create a learning environment that encourages and provides a challenge to the learner's beliefs, support evaluating ideas against alternative ideas and other contexts and provide the opportunity for reflection with regards to the content learned and the learning process itself. Thus, learners create knowledge through evaluating the problem by making solutions when dealing with the “problem” as a stimulus for learning. Each learner’s construction of knowledge comes from their previous experiences, learner activities and the context which develops through group negotiation. Understanding is unique to each individual because learners construct their own knowledge, therefore knowledge cannot be fully and completely shared. However, Savery and Duffy (1995) argue that the process of constructing knowledge benefits from sharing ideas between individuals and discussion work helps individuals construct their own knowledge where learners in the group test the degree to which each individual’s understanding is compatible. How much is learned in PBL is a result of both group collaboration (the social constructivist point of view) and an individual’s knowledge acquisition, as both activities encourage learning in PBL to an equal extent (Schmidt et al., 2011).

Regarding Islamic belief, the Quran is divine and the main origin of all knowledge. Muslim adherents to Islam uphold that the Quran is the unalterable. Al-Ghazali (2005) the classical theological scholar states that Islamic epistemology originates from the Divine Book. He separates knowledge into religious and rational facets (referred to as '*ulum shariyyah* 'and '*ulum aqliyyah'*). *Ulum aqliyyah* is knowledge that is gained as a result of human thought, while *ulum shariyyah* is ascertained by prophets. Al-Ghazali asserts that each of these kinds of knowledge is significant to understand purification of thought, as well as the soul, which for Al-Ghazali (2005), constitutes the final aim of knowledge.

Ulum aqliyyah is known as "earthly knowledge" (roughly translated as logical or rational science) by Al-Attas (1979) which has to be discovered by humans themselves. This suggests that Islam acknowledges that education exists as an active process and thus, educators need to persuade and support their students to be proactive in the construction of knowledge. In theory, this appears to be harmonious with regard to the core virtues of constructivist theories and the active construction of understanding and knowledge, in which active learners do not attain or gain new understanding in an impassive manner. Al-Attas (1979) stated that the inclusive approach to Islamic education is aimed at the "balanced growth of the total personality… through the training of Man's spirit, intellect, rational self, feelings and bodily senses… such that faith is infused into the whole of his personality" (p. 158).

When regarding Islam as ontological absolutism, where the divine revelation is indisputable and Muslims have to adhere to absolute beliefs such as the unity of God, finality of prophethood etc., there is tension between ontological absolutism and the personal relativism inherent in constructivist learning theories, where some absolutism, such as the five prayers per day, which Muslims are obliged to perform, must be adhered to without arguing about the number of times. Moreover, given the cultural upbringing of the Muslim students, a real critique of Islam may well be outside their conceptual boundaries; however, Muslims seek to find earthly knowledge, and correlate it with the knowledge revealed by Allah in the Quran. Through critical thinking, Muslims should reflect on the existing evidence (the Quran and Sunnah) and analyse them, resulting in a deep understanding of their religion and increasing their faith through making correspondences between what is written in their sources and the reality of their lives.

The IE curriculum in KB expects students' constructed knowledge to be legitimate according to the absolutist claims of Islam, which are within the Quran and Sunnah, and which state that Muslims are obliged to reflect on their religion. I argue that the application of Muslim belief in day to day life "earthly knowledge" can draw on a constructivist paradigm; and that through "creating their own knowledge" by making informed decisions about mundane problems the girls are more in touch with, and have more ownership over, their own faith. This means that the construction of (legitimate) knowledge is actually confined and limited.

Muslims believe that the existing evidences are authoritative; on the other hand, the differences between schools of Islamic thought are based on different understandings of these evidences. Thus, Muslim students need to have the ability to understand and compare between these schools of thought as they have the right to understand their religion by themselves. This right arose in one of the Muslim schools, for example, Ibn Hanbali stated "Don't imitate me or imitate the *Malek,* nor *Althaoree* or *Ouzai,* refer from where we take, which means the Quran and Sunnah" (Bin Hanbal, (2013).Accordingly, my specific application of PBL which comes out of constructivism does not invite students to challenge either the reality of Islam or its central tenets; rather, it encourages students to think independently and be creative about the application of Islam to their own lives and community, which enhances faith, which is one of the MoE's intended outcomes for IE.

Phillips (2007, p. 399) categorised constructivists through three different scopes in order to identify the differences and links between them. The first scope concentrates on growing the context of subjects; the second scope focuses on the cognitive contents placed in the learner's mind and the last scope combines both the first and second scopes. This final scope is adopted in this research, as the knowledge is constructed based upon the experiences of the learners and the content of IE. In this regard, it can be said that if the context of the subject in IE is not adequate, the previous knowledge of the learners plays a role in closing the gap. Thus, this research cannot depend solely on the first scope, as Muslim learners need to reflect on their sources by questioning what leads to "increased faith"; this is the main aim of teaching IE in a Muslim society. Alongside this, the second scope focuses on individual learners and neglects social influences, which does not satisfy the nature of this research as a "religion study" where Islam's sources are considered as the foundations for Muslim learners.

A teacher in PBL should have clear background and knowledge about the given topic, because he/she is responsible about supporting students' learning process. That is; the teacher's role is to facilitate the students' learning without providing specific answers (Bessant et al., 2013). In PBL, it is the teacher's responsibility to enhance and assist students in creating an effective learning atmosphere. Also, it is the teacher's role to guide and assess the students during their discussions. Constructivism argues that creating knowledge by trying to find meaning in their experiences leads students to play active roles and be effective participants in a learning procedure (Boghossian, 2006). However, under constructivist theory, knowledge does not and cannot reflect some objective , ontological reality because that is unknowable(Grimmitt, 2000, p. 208). This resembles Islamic beliefs which state that some objectives are unknowable to the human mind such as the Throne of Allah which is stated in divine knowledge, so these unknowable objectives have to be known by faith. Otherwise, I can argue that constructivism may lead to enhanced faith where students find meaning in their understanding of their sources by being active participants in their learning. In this regard, students need to be prepared to deal with upcoming issues related to Islam by being able to figure out suitable Islamic solutions by themselves. PBL plays a role in helping a student to reach an Islamic ruling by her/himself and knowing the reasons for what is religiously allowed or forbidden (halal and haram), which will enhance their faith.

The importance of collaborative groups under constructivism is that they allow students to test their understanding and investigate the understanding of others as a process of enhancing, interweaving, and enlarging the comprehension of specific problems or phenomena (Savery & Duffy, 1995; Hartle et al, 2012). In PBL, students are actively taking part in their individual learning whilst collaborating in groups. Early discussions in small groups assist students to cultivate and share knowledge they already have. With this background of previously gained knowledge, students actively create explanatory models, which subsequently allow the processing and understanding of fresh information (Norman and Schmint, 1992).This is in line with my primary data where students test the degree of their understanding through exchanging ideas and weighting the different alternative solutions in small groups and in open discussions at the end of the lesson.

In the eyes of the teacher, the key responsibility is to create and uphold a collaborative problem-solving atmosphere where students can freely create their own knowledge and the teacher is merely the facilitator and mentor from a constructivist perspective (Scheer et al., 2011; Tam, 2000). There is limited focus on the importance of a teacher, and instead the teacher creates circumstances which allow individuals to take on the role of instruction (Bartlett & Burton, 2012). Brooks and Brooks (1993, p.4, cited in Tam, 2000) observe that a constructivist teacher is an individual who will support and welcome student independence and creative thinking; employ various materials (such as raw data, primary sources, and interactive materials) and encourage students to make use of these; ask about students' perceptions and ideas prior to stating their own personal understanding of those concepts; motivate students to take part in dialogues with the teacher and with each other; discuss students' experiences that contradict the students' first understandings and then spur on the discussion; give students time to create relationships and construct metaphors and evaluate students' comprehension by means of application and performance of open-structured activities. Every learner's individual experiences now take on a special and unique meaning. Grimmitt applies constructivism in Hinduism, while involving a teacher in the lesson as he stated that 'the teacher plays a significant part in the process by providing information and supporting pupils in their attempt to consider if and how they might accommodate this within their own meaning structures'(2000, p. 217). This process might have affected the students' final conclusion, as they were not given the opportunity to search for the information needed to answer their questions. As Rousseau (2007, p. 392), stated: 'If ever you substitute in his mind authority for reason, he will no longer reason. He will be nothing more than the plaything of others' opinion'. It is more practical to achieve faith through personal conviction and not through indoctrination. In the case of Grimmitt, providing information was part of the learning process; while the current research applies PBL in IE under a constructivist framework, and considers the teacher as a facilitator who does not have to intervene by providing information unless this information is required by a student.

Regarding the learner's role, Ernest (2006) and Scheer et al., (2011) state that it is necessary and important for constructivism to be sensitive and act on the learner's earlier learning and knowledge creation. Furthermore, Ernest (2006) argues that attention should be paid to identify learner mistakes and misunderstandings as learner outlooks are derived from the whole of their wider experiential existence. The value of all elements of the social context and of interpersonal

relationships needs to be taken into account, with attention to teacher-learner and learner-learner interactions in learning environments (such as negotiation, collaboration and discussion) and the importance of language, texts and notes in the teaching and learning processes (ibid).

Applying constructivism to real world situations is a critical issue for instructional designers where instructional design is a process of improving learning which includes defining course aims and objectives and how to address them, implementing course content and evaluating the course (Chapman & Cantrell, 2015). Constructivism is not a "one size fits all" solution for all instructional matters. Constructivism has a number of criticisms of learning environments, as discussed later, which could work against its usage. However, constructivism can provide crucial lessons about how to make sense of the outcomes of learning and how to create environments that encourage learning.

Constructivist learning theories were criticised by a number of scholar. For instance, Phillips (2007) argued the negative part of the constructivist argument; that says there are no tasks which are "objectively" right or wrong, and as a result lay in the epistemological relativism roots. Phillips (2007, p. 398) goes further to state that when neglecting an impartial and full rationale for the argument and opting for relativism, arguably, the use of two forms of constructivism (individual and social) of learning construction could lead to the truth that might be based on either personal or cultural beliefs. With considering all that, Fox (2001) rejects the idea that knowledge is acquired as the result of learners actively taking part in the process, believing that methods such as learning by rote should be considered.

Regarding Islamic views, Muslims have to be obliged to the ontological absolutism such as fasting "Ramadan" in a particular month and they have not had a choice to fast Ramadan in different month. Muslims believe that the fundamental tenets of Islam are not 'made up' but exist independently of the human mind (this relates to divine knowledge as a form of knowledge for example believing in the angels and the Day of Judgment); they are absolute, not relative or subjective. The rational justifications, however, must be clarified by any person who makes decisions in the provisions of Islam, such as issues which invalidate the fast. At this point, these decisions could be true or false. The justification of the decisions comes from human understanding of Islamic resources.

Furthermore, different individuals' understandings come from different understandings of their Islamic sources which may require more negotiation and testing in order to reach a final compatible solution. In this regard, Salah bin Humaid, n.d (The Imam for the Masjid Al-Haram in Makah) stated that intellectual opinions are often relative, and not easy to decide which might be true or false. This conclusion excludes the prophets (PBUH) in reporting their Lord. Other than that one could say my opinion is true but could be false, another person's opinion is false, but could be true. These rational justifications encourage Muslims to make efforts to find the final conclusion to any issue that may arise. Taking that into account, "implied by common sense" as Fox (2001) argued above, cannot be applied in finding Islamic provision where the final conclusion has to be based on evidence from the Quran and Sunnah. Muslim scholars make judgments on behalf of Muslims because they have the necessary skills and qualifications. However, Muslim student need to be trained in order to be able (acquire certain intellectual skills) to understand and create Islamic provisions independently based on evidence. This allows Muslims to debate Islamic jurists and draw their attention to some points that may be absent in their judgments. Every Muslim should have the opportunity to deeply understand Islamic provisions and apply them thoughtfully.

A further critique of constructivism, as raised by Tam (2000), is that it disregards the initial practices of students by overlooking students' prior knowledge. On the other hand, Karagiorgi and Symeou (2005) state that constructivists counter individual understandings of the world, because as they assume the learning goals could be hardly achieved if not impossible. In addition to that, there is another area which holds unanswered queries or disparities compared with the instructional design methodology; it is the learner control (Tam, 2000). However, from the constructivist perspective, a crucial factor in creating constructivist models is to allow the learners to have control regarding the creation of content (Savery & Duffy, 1995).

Karagiorgi and Symeou (2005) carry on their discussions about constructivism to state that there are some disparities amongst constructivists and instructional designers. That is to say; for constructivists, testing occurs as a part of the progression resulted from the authentic tasks, and evaluates learning acquisition but not expertise within a pre-defined set of skills. However, if the learning outcomes are individually created, as constructivism believes, it is almost impossible to create principles to evaluate the effectiveness and meaningfulness of any learning process.

Similarly, Tam (2000) stated that such evaluation can be an issue within a constructivist learning atmosphere. Thus, constructivism and PBL supporters are worried about context, especially when it comes providing instruction over assessment.

Some of these critiques can be countered by practitioners who are creative in their ability to create their own methods to assess student learning and evaluate individual progress overall. Along these lines, Savery and Duffy (1995) discussed how constructivist ideas used a collection of instructional standards which could assist in the application of teaching and the creation of learning environments; however, this was often based on ideas used in isolation instead of with the background of the entire framework.

In the context of the application of constructivism, Cey (2001) puts forward the idea that peer-assessment and self-assessment should be integrated in the educational design. The initial supporters of PBL believed that this type of assessment was one of PBL's features. Also, Savery and Duffy (1995) mention that in the context of certain PBL methods, there are no pre-specified objectives shown to the students, who instead produce the objectives and sub-objectives based on their analysis of the issue. The aim of PBL is to explore students' experience of the topic in order not to limit the learning and to offer students' autonomous control of their learning. The pre-specified objectives are already included through the selection of an appropriate problem for the PBL task, and the stage of the PBL process.

Through the presentation of PBL and the instructional ideas which come from constructivism as mentioned above, it can be concluded that through the use of PBL under the constructivist viewpoint in the learning context, students seem to be able to use their previously acquired knowledge, self-directed learning, and problem solving during teamwork. Students under the PBL shadow, relatively, could learn and develop their critical and independent thinking, and as a result they will learn how to face real world problem solving situations, also they will able to examine the problem effectively in terms of the consequences. Learners within the PBL frame, however, must view the problem as an authentic issue and one which carries personal importance, as a result building knowledge and understanding is extensively evaluated through its use in its application to problems in real life situations. Through the ownership of the learners' learning and problem solving procedures, students seem to be able to create a variety of

solutions. Therefore, the most important aim is to facilitate the learner to become an effective critical thinker when it comes to this area. Group discussion and sharing of experiences and understandings, along with personal reflection, are considered as key aspects of the learning procedure. Thus, PBL is a practical and efficient teaching strategy employed to facilitate constructivist learning, the purpose of the IE PBL module in this study is to give the students permission and encouragement to think independently, hoping that this would improve and develop their deep understanding of Islam as well as their well-connected personal relationship with Islam. In short, the principles of constructivism, PBL and IE appear compatible. In terms of the constructivist perspective, the information and understanding is not transferred in a passive manner but is individually created. Learners' previous understanding and knowledge structures work in an active manner as a result of new educational experiences. With regard to the adoption of PBL, learners can employ formally assimilated information, self-directed education, and problem solving through teamwork. If learners find themselves in a real-life situation where they have to deal with an issue or problem, then they are required to assess the issue at hand in an effective and intelligent manner. These students will require intellectual abilities and skills to perceive the issue as a genuine problem, and a phenomenon that requires the individuals' attention. To add, from an Islamic perspective, the knowledge of the second variety (earthly knowledge) needs to be explored and constructed by people in order to substantiate the information shown to us by Allah. This does not include the first form of understanding that is of the revealed knowledge via Allah, which comes immediately from him and remains unchangeable and perfect. Within the setting and context of KB, which is an Islamic nation, I argue that educators and learners are hoping for a change in the educational system that employs educational theories more suitable to Bahraini traditional conduct and cultural history. Despite the fact that there exists considerable criticism when trying to introduce Western educational notions such as PBL and constructivism to an Arabian nation, it may be possible to use the compatible elements that exist within these theories to create a bridge by which to amalgamate the epistemology and PBL approaches into one, thereby encouraging comparable approaches and aims.

3.5 Conclusion

The characteristics of PBL have inspired me to apply the PBL approach in IE in KB as it concentrates on giving students autonomy over their study and gives them the opportunity to acquire knowledge independently in order to use it thoroughly during their lives. Additionally, this study demonstrates that PBL boosts students' responsibility. The link between theory and practice develops students' problem solving skills, which are currently absent in the classroom in KB, as noted in the annual report of the QAA.

There are different PBL processes that are undertaken in different disciplines, such as undergraduate biochemistry in the United Kingdom, chemistry and mathematics in high schools in the United States, in IE in a primary school in Jordan and in university medical courses in the Netherlands. By analysing these processes, the basis of the PBL module utilised in my study has been created and applied to meet the MoE's policies in KB.

Accordingly, PBL will be implemented according to the requirements of the institution, taking into account the four primary features of PBL: problem creation, role of the facilitator, students being the centre of learning and team work. Furthermore, the acquisition of knowledge and skills and an improvement of attitude to learning emerged through the assessment of PBL. The challenges facing the teacher and students in applying this new educational approach were also explored.

After discussing secondary education in KB, the concept and aims of Islamic education were discussed in chapter two, and the value of PBL as an instructional design method within the framework of constructivist theory was debated in this chapter, it can be concluded that PBL is important for IE because:

- The Holy Quran emphasises thinking 'Tafkur' which is mentioned in the Quran 18 times; the meaning of thinking is to examine things and analyse them, then link them to facts that are commensurate appropriately with reason and logic.

    - Knowing the Islamic provisions and the wisdom of religion is an Islamic requirement. The Holy Quran condemns individuals who follow their parent's

religion and approach unthinkingly. Consequently, the individual in Islamic society should not follow the provisions of the parents or the curriculum unconsciously.

- PBL offers guidance to students to find the sources of Shariah ruling and gives them the chance to choose the most appropriate legal provisions and respect the choices of others.

Chapter Four
A Problem-Based Learning Module in the Context of the Kingdom of Bahrain in Islamic Education

4.1 Introduction

This chapter discusses the IE PBL module devised and delivered to female students in secondary school in the eleventh grade, in the context of IE in KB which includes ten topics of the lessons. The IE PBL module has an instruction of PBL for students called “The guidelines of the PBL process” and the content learning materials are displayed in the students’ textbook “Provisions of the family in Islam (201)”.Initially, the chapter describes the particular curriculum in which the IE PBL module is applied. Secondly, it explains how permission to access the secondary school to implement the module was gained. Thirdly, the design of the IE PBL module is discussed. Finally, the four steps of IE PBL module processes are explained in detail.

4.2 Description of the curriculum

The elements that constitute IE were taken from the existing curriculum (201) on the subject. IE in KB educational system at the secondary level of education is separated into ten different subjects. The textbooks are conferred upon and centrally agreed by the policy of education in KB and schools are required to implement them. The content within these textbooks is arranged to deliver factual knowledge, and students are required to learn this information by rote. This will be expounded further in the discussion chapters.

The IE PBL module was designed in this study on the subject “Provisions of the family in Islam (201)” this subject contains four modules; Marriage and its Provisions, Islamic Organisation of Marital Life, Inheritance and Wills and Islam Protects Family from Crime. This subject is taught twice per week; the period of the lesson is one hour. For my PBL module I selected the theme ‘Islam organises marital life’. The primary reason behind the selection is that the subject addresses the rights of children and parents regarding marriage and divorce, which is directly related to students’ life. Furthermore, students are required to use what they have been taught in

this subject during real life issues regarding Islam after investigating such societal issues. It is believed that the flexible nature of the content of this subject makes it easier to utilise PBL.

The fieldwork of the study involves the application of a PBL module within IE to a specific population of year eleven female learners, aged seventeen in the year 2013. The IE PBL module includes ten topics that are divided across seven weeks throughout November and December 2013. The major aim for 'Islam Organises Marital Life' as identified by the MoE (2011), is for students to be able to recognize and identify the rights of each member of the Muslim family, and the sub aims are to identify the rights of both the husband and wife, identify the rights of the parents, identify the rights of girls and boys, identify the rights of relatives, and explain the concept of divorce and its types.

As has been stated previously, these aims are to endeavour to ensure that students comprehend particular elements of Islam and Islamic culture. However, during my experience in teaching IE and observing teachers' training the current teaching delivery of IE does not allow sufficient scope for students to reflect or assess these values as part of contemporary life. As has been expounded upon in the section dealing with the principles of Islam, the teaching of Islam insists that students reflect on values of Islam in their own views. Within this study, the focus upon the application of PBL is to provide students with the means of dealing critically with certain phenomena and to assess complex situations (White, 1996; Duch et al., 2001; Closson, 2011). Thus, the intention is to adhere to the Quran's advice that hopes to assist young people in their reflection upon Islamic knowledge in order to boost their understanding and practising of Islam.

Through my reviewing of the textbook 'Provisions of the Family in Islam (201)' which was issued in 2013 by the MoE, I found that the textbook aims to get students to learn by rote and not think about the topics; the activities displayed in the textbook do not enhance learning. The pedagogic tones of the textbook can be shown in the following points: Initially, the definition of a subject is presented in accordance to Islamic Law, then the Islamic argument on the topic is given on the basis of Islamic ideas and sources. However, the arguments of Islamic scholars are not fully explained in the textbook; they are mentioned in some topics and absent from others. Finally, the lesson seems to be oriented around the conveyance of particular definitions and what is considered to be the 'right' position regarding the particular issue. This textbook structure does

not allow students to devise their own understanding of the topic being taught; rather they repeat the materials learned by rote.

The initial phase of my research in-the-field started with observing teaching in IE in general for grade ten. I attended twenty sessions in ten classes for four teachers which I audio recorded. All these sessions were observed with regard to teaching styles and students' leaning behaviour in order to know how the lessons are delivered; this raised my awareness of students' abilities, so that the teaching experience could be assessed more accurately, which allowed me to design the IE PBL module appropriately.

The notion of applying the IE PBL module started by examining the information presented in the textbook in IE, and was further substantiated by observing IE lessons. As a result, I decided to apply PBL by generating my own module on the topics to be covered.

Applying IE PBL module that I designed formed the main core of the primary research, which included ten lessons on different topics. Each lesson was audio recorded. I kept a research diary in which I recorded my observations about the students' progress and reactions to the IE PBL module in the classroom.

4.3 Accessing the Educational Institution

In order to observe the outcomes of introducing IE PBL module in Year 11 within IE classes in KB, where I used to work as a teacher of IE and then as a supervisor of trainee teachers in IE, First, I had to obtain official permission from KB's MoE. In doing this, I wrote a short letter that stated the intentions and objectives of the research. The MoE was interested in the study, with officials in particular wishing to see the research's findings regarding the IE PBL module and its impact upon the IE curriculum. Despite this, the way in which the permissions were granted took a long time, and I required permission for every stage, thus the MoE assessed the documents such as the PBL module proposed, questionnaires, self-evaluative forms and the interviews before submitting any application to the educational establishment. Consequently, I was granted three permissions to undertake the study in the secondary school in KB (see Appendix1, 2 and 3).

On arriving at the educational establishment, I was greeted cheerfully by administrators and teachers, who were friendly and cooperative. Teachers were interested in developing the learning process with regard to student centred learning which was emphasised by the QAA and the MoE. Students were keen to take part in the IE PBL module. I explained the objectives of the research to students and teachers and what they would be required to do in detail. Once I had designed the IE PBL module, it was delivered by the participating teachers during students' routine hour-long IE classes. Classes were delivered in Arabic as normal. I was present in classes to observe how the IE PBL module worked.

4.3.1 Designing and Applying Procedures of the PBL Module

The four stages of the 'IE PBL module' which I designed were shaped and informed by the four modules outlined in table (2, p.56).These stages are: problem presented, understanding the problem, problem analysis and decision-making. The first stage of my module is 'problem presented', which was informed by Smith (1995), Delise (1997) and Kotammei (2004). In the context of my research, the "terms" included do not need further explanation, as per the medical subject proposed by Schmidt and Moust (2008).

My module followed the same track as Kotammei's (2004) IE module implemented in her research by weighting different solutions; however, it differs slightly from Kotammei's model due to the introduction of an additional process of weighing alternative evidence before the weighting of the solutions. This difference was noted in my module, as students need to be trained to use an order sequence and weigh evidence by themselves in order to find the appropriate Islamic provision. Kotammei, however, provided the students with evidence at the first stage, and encouraged them to draw their own conclusions about Islamic provisions. On this basis, the other three modules – Biochemistry, Chemistry and Maths, and medicine – focussed on discovering the missing information before the final stage. The final stage in a five-module process, which includes my module, is suited to a discussion about a variety of solutions.

In my research, applying PBL in IE could achieve three main aims which go in-line with the MoE aims. Firstly, as it is one of the absolute rights for every Muslim to come up with solutions and understandings (Quran and Sunnah), students will be well trained and encouraged to create knowledge. Secondly, students' skills and abilities will be developed. They will be able to make

choices and decisions in terms of the available legitimate opinions. Thirdly, as a result of the two previous aims students will be motivated and enjoy the process of learning which in turn will ensure the learning outcomes and the MoE aims are achieved.

Though, this research was conducted at the same social context where participants of the study share similar educational environment, culture, values and beliefs, some similarities and differences in terms of the participants' knowledge and practices existed in the research findings. Things such as identifying the positive and negative aspects of the encountered issues, and also some relevant factors which could have a somehow impact on the participants and as a result had an impact on the research findings. In addition, my module – in its new context of KB – required a greater number of instructions to apply these stages, as Bahraini students have not undertaken similar modules before. These instructions could be reduced or merged if students were more familiar with the PBL process.

In preparing to plan the IE PBL module, I was guided by the set of questions formulated by Bessant et al. (2013.p.9), which are listed below, while I familiarised myself with the policy education of KB and the aims of IE to address the design of the PBL module.

1. What information, aims, skills and abilities must the students develop through the module?
2. What is the amount of PBL scenarios that are to be completed throughout the module?
3. Are the PBL modules to be on a weekly, biweekly basis or just once or twice per module?
4. Are all the groups to experience the same or different PBL scenarios?
5. Are differing techniques to be used in conjunction with the PBL module, such as; online materials; lectures; discussion groups and presentations by students?
6. Is there to be individual, as well as group testing?
7. Are facilitators required, and if so, how are they going to be trained?
8. Is an induction required for PBL students?

I will address my response to each of the questions below:

Q1. The information concepts, abilities and skills that needed to be developed by students using the IE PBL module were under the policy of the MoE in IE at a secondary level, in general. In this regard, Hmelo-Silver (2004, p.236) argues that the PBL objectives are intended to help students devise a deep and broad information foundation; to develop their problem-solving abilities; to improve self-directed learning; to collaborate effectively, as well as to be intrinsically encouraged to learn. Despite this, the objectives of the secondary stage that are shown in the documents of the MoE (2011) are seen to be theoretical, though there are no practical instructions in the textbooks that may assist students in contemplating the topic overall. Thus, I intended to assist students in improving their own skills for learning which would therefore assist them in the self-learning of the subjects taught to them.

Q2. During the IE PBL module students were going to cover ten topics.

Q3.The IE PBL module was applied twice a week over a seven week period, certain days were not counted as students had to take an examination mid-term at this time; teachers were absent and there was no means to apply teaching at this time.

Q4. In the IE PBL module the same ten topics were to be used by four groups.

Q5.The IE PBL module used discussions in classes and the textbook was used as a learning material, however, alternate techniques, such as lectures and student presentations proved challenging to apply due to temporal restrictions; the hour long classes were not long enough for students to learn the subject and give a presentation. Furthermore, online educational materials were limited because students had no internet access in class; this is considered to be a limitation of the teaching environment and resources.

Q6. The IE PBL module considered the ‘self-evaluation’ of students via a distributed self-evaluation form at the end of the IE PBL module. The self-evaluation form and other assessments such as interviews and questionnaires will be discussed in the methodology chapter.

Q7.Two regular teachers took the role of PBL facilitators within this research, both of whom taught the ‘Provisions of the family in Islam (201)’ module, so these two teachers taught the first module ‘Marriage and its Provisions’ conventionally, but continued teaching the second module

‘Islam Organises Marital Life’ using the IE PBL module. As being a facilitator was a new role for these teachers, they needed to be trained, I met with them for four single-hour sessions to expound on the IE PBL module and how it was to be applied, focusing on the new requirements of the role itself. During the meeting with the teachers, some questions were raised such as: what we can do if students do not reach the solutions? And do students reach the answer by themselves? During the discussion they agreed with me that their role needed to be transferred from teacher to facilitator, as the MoE and QQA advised them constantly to keep the student the centre of learning.

Furthermore I gave them a “teacher guide” (see Appendix 4) which I had written in order to form a clear idea regarding their new role and advised them to retain it for reference. The “teacher guide” was reviewed by my supervisor and three curriculum specialists (see appendix 5) and then it was revised in response to their feedback before I gave it to the participating teachers. These feedback comments included recommendations to add the features of PBL, the objectives of the Secondary School for IE, and more details on the role of the teacher and the difficulties that they could face during the implementation of the IE PBL module.

Q8. I conducted two induction sessions for the four classes involved before applying the IE PBL module. The reason behind this was to prepare students for the IE PBL module. The aim of the first session was to expound the IE PBL module, while the aim of the second session illustrated how PBL met the objectives of IE. Consequently, students were motivated to participate in the IE PBL module.

At the end, the aims of the MoE for IE and the aims of the IE PBL module I designed for ‘Islam Organises Marital Life’ module holds the major aim of recognizing and identifying the rights of each member of the Muslim family. Indeed, this module's aim is to encourage the students themselves to investigate the phenomenon and understand the role of each Muslim member of the family, as well as the Islamic law that comes with it. As argued by Delise (1997), the choice of the current aims of the MoE would lead the teacher to reference curricula that have been devised by the state and the groundwork of this includes what students are expected to know on completion of the PBL module; in this study, I took the role of the designer of the IE PBL module.

Following the determination of the aims, with regards to the general aims of the education policy of KB, and the noting of the requirements and consequences of the policy, I began by designing the IE PBL module through reference to former studies that have been discussed in the literature review chapter, and which can be seen in Table (2). The four PBL modules in Table (2) were similar, though varied somewhat with regard to terminologies. In this regard, I considered the differentiation within the cultural specialisation frame, the educational level and the relevant governmental policy to education. For instance, Kotammei's (2004) study showed a theoretical PBL module for IE in Jordan at a primary level, which was never implemented before and no results were ascertained thereof. On the other hand, my study manages to provide a theoretical and practical PBL module in IE, differing from Kotammei's model regarding its location, as well as MoE policy and level of education. This research was implemented in KB, at the secondary school stage under the umbrella of the educational policy of KB. The IE PBL intervention empowers students to connect with their own minds where constructivism principles worked as planned; the IE PBL intervention empowers the girls to construct their own knowledge. The constructivist perspective understands the students as actors instead of observers, however, conventional education demands that students function as submissive containers who need knowledge to be administered, and does not permit students to learn through hands-on activities, communication, investigations, group assignments, conduct examinations outside the classroom and outside the school, library or laboratory, etc. (Grimmitt, 2000) .

The IE PBL module is called the "Guidelines of the Process of the PBL Module" (see Appendix 6) as it contains four stages and is considered as a guide for the students to follow the PBL activities, not as a strict procedure. This allows for a beginning point for the students to progress from, regardless of their potential. This also removes, or at least lessens, possible confusion while retaining an element of creativity. There is a need for the student to be able to think through each stage before they continue to the next stage, which thus allows them to comprehend each stage as every stage complements the, others.

Real problems have been taken as part of the learning programme in the IE PBL module, which forms the simulation that will allow the learning process to take place. Students apply the IE PBL module problem-solving to determine the legal provisions on an autonomous basis without intervention from their teachers. Students use evidence and information in their textbook as this

the only source available to them. As explained in the previous chapter, my study falls under the umbrella of constructivist theory. The “Guidelines of the Process of the PBL Module” in this is study developed student autonomy, which is fundamental to constructivism (Muijs and Reynolds, 2011). The current research is derived from the MoE aims that encourage independent and critical thinking. To respond to the MoE policy, I devised a particular model of PBL appropriate for IE in KB, following the comparative analysis of four PBL models as mentioned above. Therefore, the IE PBL module is a practical and effective teaching strategy to apply constructivist learning.

This study endeavours to utilise the “The guidelines of the PBL process” to assist students to avoid 'blind alleys' and furthermore assist them in remaining with the problem until they have built an 'understanding platform' for the next step (Delise, 1997,p. 26). The "Guidelines of the Process of the PBL Module" is undertaken in four stages. The diagram below illustrates the four stages of the PBL process:

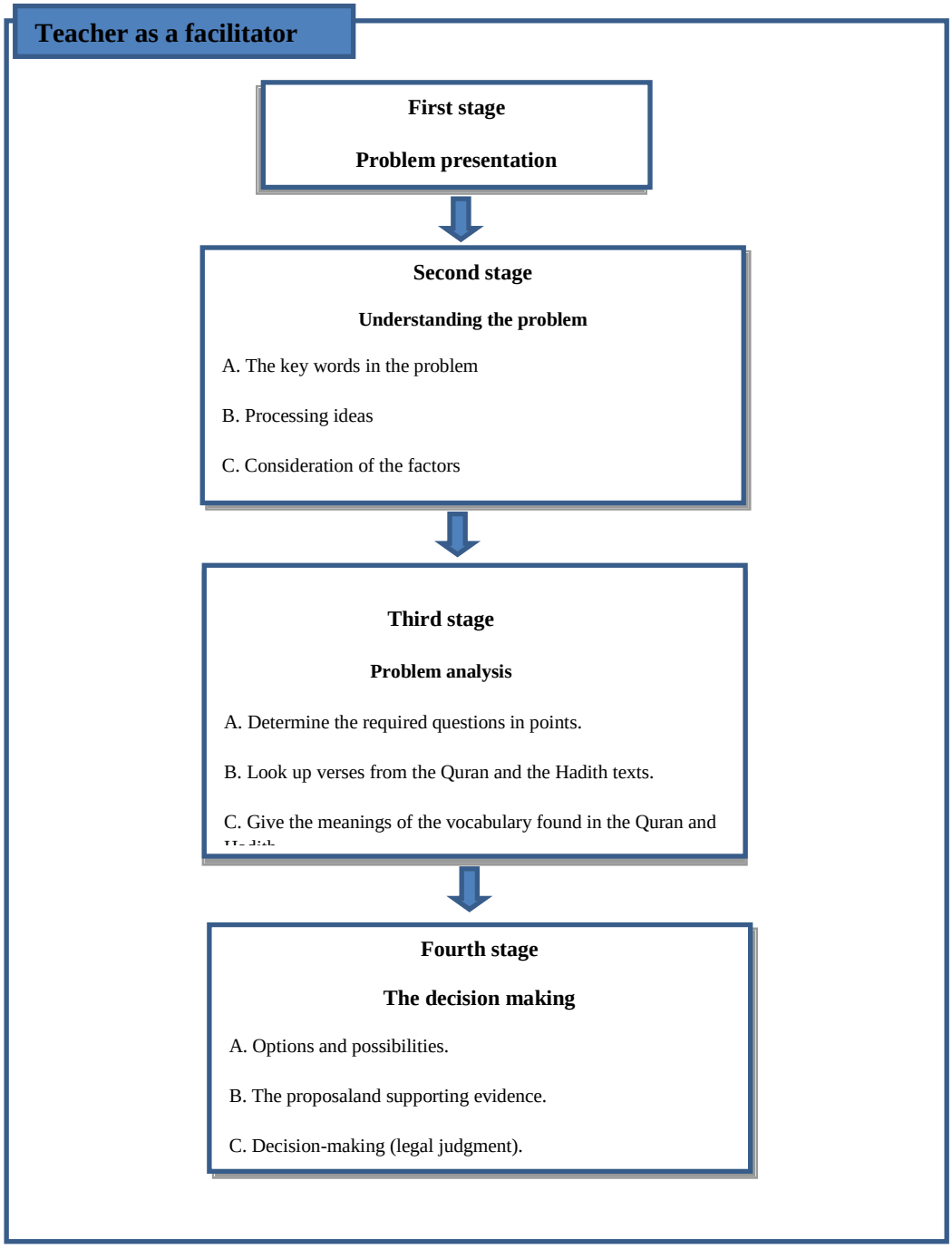


Figure (4)The Outline of Problem-based Learning process in Islamic Education in the Kingdom of Bahrain "The guidelines of the PBL process"

4.3.1.1 First stage: Problem presentation

Several problems taken from real-life experiences of citizens of KB were shown to the students; these were taken from the court archives of KB and from Islam web (Islamweb. net. 2016). I requested frequent real life problems from the Chief of the Bahraini Court which were matched to the topics of the IE PBL module. This request was granted (see Appendix 7) and the problems were then collected from the court of KB, where names and locations were blacked out due to confidentiality concerns (see Appendix 8). With regard to this information, Savery and Duffy (1995) give three reasons why PBL problems needed to be drawn from real life. First, the students are open to investigate all dimensions of the issue to determine whether there is a significant problem to generate substantial questions with a uniform grouping of data or information. Second, the issue generally engages students if there is a grander degree of familiarity with the issue. Lastly, students should hope to know the result of the issue. Such results are impossible with hypothesised problems, and as argued by Smith et al. (1995) and Kotammei (2004), the problem should be a real one as well as being directly appropriate to the student's focus subject and similar problems that may see in their careers in the future.

The IE PBL module commences with the presentation of the problem to the students who are organized into small groups to receive the problem. In this regard, constructivism emphasizes the importance of people’s communal and custom contexts through the methods utilized to react and understand the life around them (Grimmitt, 2000).The primary aim of the first stage is for the student to make a connection between the problem and real life, as well as to persuade them to deal with the problem effectively and directly. Furthermore, the student will be inclined to participate in different problems which are distributed across the class, as some of the students may have experienced or at least heard about these problems .With regards to this, Schmidt and Moust (2008)claimed that previous knowledge could possibly have been assimilated by students through formalised education or could have arisen from their individual experiences with a similar scenario. Consequently, the task and the educational setting need to be designed to reflect the complexity of the content itself so the students are able to apply it in real life situations (Savery& Duffy, 1995).

The teacher's position in this procedure is to show the problem (under a particular study) and steer students into a short discussion regarding the subject-matter as a result of the temporal restrictions, asking for instance: What do you know about the dowry? Did you hear about problems related to the dowry? The motive behind this procedure is to develop a relationship between the student and the problem through contact with it (Delise, 1997).

4.3.1.2 Second stage: Problem understanding

This stage ensures that students have an appropriate foundation to solve a problem and that none of the problem components are neglected so that the problem is discussed from all angles (Delise, 1997). Stage two is undertaken in three steps:

Firstly: Students should be able to identify and take key words from the problem, as the problem may not be resolved without the process of students' comprehending key terms. Both Smith et al. (1995) and Kotammei (2004) claimed student groups need to analyse the problem closely to draw out its key concepts, in order to think systematically about how to solve it.

Secondly: Through dealing with the processing of the main ideas, students need to understand and examine ideas to identify the positive and negative aspect, rather than merely accepting or rejecting the information. With regard to this, dealing with processing ideas is deemed to be a critical and integral element of the understanding of any problem, and without these processes, students may indeed see little or no value to the problem.

Thirdly: After all aspects have been amassed and considered, the student must then understand and explore factors around the scenario, while accepting the manifold positive and negative factors that come with making a decision. Several elements must be taken into account and, if these elements are neglected, they will subsequently impact the findings.

Students should reflect on their initial thoughts and judgments about the problem and determine what they understand and what they do not. Then they should devise their own means of understanding the problem on the basis of self-directed learning. This framework forms a scaffold by which students may develop their comprehension of the problem. Subsequently; they

must devise learning issues for their self-informed study process, as argued by Schmidt and Moust (2008).

The teachers' role within the secondary stage is to make the student recall that they are the ones who must resolve the problem. If the student begins to deal with the problem through the intended schematics, this will then assist them to focus on the problem overall, and not to neglect any particular facet. Students who write down theoretical thoughts and primary points of interest find that these assist them in discussions, and then this, in turn, develops their ability to take notes. The teacher has a significant role to play, including reminding the students to fill out relevant information, and, as argued by Delise (1997. P.6):

- They should ensure that the students retain the liberty to get involved and share their views.
- They should be respectful of others contemplations and suggestions.

4.3.1.3 Third Stage: Problem analysis

Firstly the students determine a number of specific questions in order to focus on the important points of the problem, referred to as "learning issues". These leaning issues concern various topics of different kinds that are seen to be relevant or prospectively relevant to the problem and that the students think they currently do not fully comprehend (Savery & Duffy, 1995). This procedure conveys to the students the issues they need to know to assist them in devising solutions to problems. The "Learning issues" contain all the elements that require additional clarification, clearer definitions and/or more research—and these problems will be used as a guide so that students can base further instigation upon them (Smith el al., 1995; Delise, 1997).

It must be mentioned here that there exists no predetermined aims for the students to follow. Students should come up with their own aims and learning goals based on the assessment of the issue (Savery & Duffy 1995). These learning issues are said to be any that are relevant to the problem and that the students believe are yet to be fully comprehended. At this particular level, students need to develop a strategy by which they can obtain the required information, and they may also take note of the resources they will require in order to resolve these issues.

Secondly: The students should work in groups to identify the Quranic verses and the Hadith texts that can help to attain understanding of a legal decision, determining the primary verses from the Quran and the Hadith texts that are deemed to be the most guide-worthy regarding the execution of law judgements. The student may then utilise the textbooks of the educational establishment, which also include evidence from the sources of Islam with regard to the subject at hand, thus students can be involved on the basis of what they can recall from former experiences. The analysing process assists students in strengthening their understandings, and their informational constructs through problem-solving. Former understanding, when utilised by one of the individual students, may indeed be inaccessible to another, as argued by Schmidt and Must (2008).

Thirdly: The students' subjective comprehension of the Quran verses and the texts of the Hadith are required, by which they must, eventually, form a legal understanding. However, there are no Islamic dictionaries of the Quran and Hadith in the student's classrooms that are relevant to the interpretations, whereas the IE PBL module would have preferred students to have had access to dictionaries if they had been available. The teacher must, therefore, facilitate comprehension of the words used in the Quranic Verses and Hadith sayings, so as to ensure simpler grasping of the concepts and thus avoid potential confusion. As a result, the students start to extrapolate what they understand in order to construct a bridge between knowledge and situations that have been described in a certain problem (Kotammei, 2004; Schmidt & Must, 2008).

The teacher's role is to become a 'bank' of information; they must explain to the student the new vocabulary, as this is deemed to be the correct analysis leading to the resolution of the problem (Delise, 1997, p. 30).Furthermore, the teacher must give students evidence, when they need it, from the sources of Islam to assist their comprehension.

4.3.1.4 Stage four: Decision-making

Firstly: within this stage, the students discuss available possibilities and options to weigh the alternative solutions, as opposed to relying on emotive responses based on brief explanations. The discussion between students ensures that the suggestion of more than a single alternative is plausible, and the assessment of these is undertaken by students until the appropriate alternative

is selected where more than one solution could be applied – this may not be possible in a single round. Delise (1997) and Kotammei (2004) suggest that the student groups will utilise varying resources to resolve the same issue from different perspectives.

Secondly: A suggested resolution is selected with regard to the process of decision making. The student needs to consider the principles that lay behind this process, and how they justify the decision taken to their peers, as well as retaining the means to revoke other decisions. Additionally, during the process of decision making the students ensure that there is a balance between evidence to find the appropriate solutions. At this stage, students must understand the balance of evidence and compare different solutions, this, according to Delise (1997) is developed throughout the decision making stage.

Thirdly: the decision regarding the Islamic legal action is undertaken, with an open discussion between groups of concern to show the legal decision in addition to its evidence extrapolated from Islamic texts. At this phase, the students must be able to pose questions on the basis of their research and other group's research, as well as noting innovative solutions. In this scenario, the teacher permits additional time for discussion (Delise, 1997). Additionally, the students must consider the uncertainties that the other groups have regarding their decision, and they must investigate and state their opinion in a scientific manner and in a rational way on the basis of critical thinking. Indeed, there may be more than a single legal judgement for a single problem, which allegedly occurred within the life of Prophet Mohammed, (BPUH) too. In this regard, Delise (1997) states that students need to support their concepts with provable facts and thus convince other students to support their proposal for a solution as part of the IE PBL module, this assists in the improvement of oral communicative skills. The teacher’s role in this step is to train students in how to investigate evidence through assessment and comparison to select the best option, and to inform students about how they can convey their ideas while respecting their peer's opinions.

The validity of the four stages discussed above needs to be verified. To do this, the ten lessons of the PBL module were devised and passed to a number of arbitrators for scrutiny. Some of them are doctors in the educational research field within Islamic Studies at the University of KB. Others are specialists in charge of designing the Islamic curriculum of IE within the MoE. I

devised an “Arbitration form” (see Appendix 9) and requested that the panel arbitrators record their observations and views about the IE PBL module (see Appendix 10). In this regard, Delise (1997) argued that teachers can consult the guidelines and the teaching curriculum devised on the basis of the topic by special groups like the National Council of Teachers (NCT) and the National Council of Societal Studies (NCSS) for the information and skills that can be included in the PBL module. Within KB, the MoE is a proxy for the policy of the education system.

Comments were received with regard to the IE PBL module, which were reviewed and taken into account. Their views can be summarised as follows:

- The panel all concurred on the argument that the IE PBL module was, overall, well-devised and prepared, and that it considered the priorities of the MoE and the aims of Subject 102 too.
- The panel agreed that I made efforts and to present the problems well which reflected real-life events.
- The content of the IE PBL module involved thinking techniques which added to the student rationalisation stage and consequently elevated the intended educational level for the student.
- Reform the problems that need to be stated in a relevant manner to suit the tone of the textbooks. To this end, I reformulated the problems and these were assessed by the specialists in the Arabic language. Some problems required additional expansion to include as many of the contents as needed, for instance, contents have been added to the lesson regarding a wife's rights to give more insight into the lesson.
- Time was insufficient and more was required. I tried to help the students to save time by providing Arabic Islamic dictionaries and terms to each classroom to help with interpreting vocabularies. The school apologized for being unable to provide Arabic dictionaries for each classroom. Nevertheless, the teacher overcame this by personally explaining the difficult terminologies.

- The stage of decision-making lacked a column for problem description in “The guidelines of the PBL process”. I took this matter into account and ensured a column was added in the module.

The evaluation of the PBL module is important for different reasons: Saven-Baden argues that the evaluation process could lead to the stake-holder getting a better understanding of the influence that this approach has had upon the learning aims and the student’s experiences. The PBL assessment element is assimilated by the teacher, who sees the students and determines their abilities at every stage and step (Delise, 1997).

In this regard, Saven-Baden (2007) suggested that evaluation can be useful for PBL, and help it to become more efficient with regard to different contexts, and thus, potentially, expand it. Numerous means have been employed to evaluate the PBL module (including observations, questionnaires, interviews, focus groups, reviews of published documents and case studies).The IE PBL module in this research is evaluated through a case study, semi-structured interviews, observations, questionnaires and self-evaluative forms for the students. These methods were used to evaluate the PBL core-study which was the implementation of the module in the girls’ school. The students’ and teachers’ evaluation of the module are displayed in the discussions chapter.

4.4 Conclusion

The purpose of the IE PBL module is to complement the MoE’s aims in order to design a particular PBL approach related to secondary school education in KB, taking into account PBL features and challenges. I settled on a particular model of PBL suitable for IE in KB, following my comparative analysis of four models from different areas and disciplines. My PBL module takes into consideration cultural differences and educational policy in KB and responds to the MoE’s aims under the frame of constructivist learning. The module was validated by an arbitration panel to ensure that it met the education policy for IE in KB. After delivery, the IE PBL module was evaluated by students and teachers in order to identify its weaknesses and strengthens to find out how this module would be appropriate for IE in KB. The next chapter displays the method of evaluation of the IE PBL module and the outcomes of the evaluation are presented in the discussion chapters.

Chapter Five
Research Methodology

5.1 Introduction

This chapter explains and justifies the research design, including the methods of data collection and data analysis. The research sample is evaluated and the criteria employed to guarantee fairness and ethics in the research design are explained.

Four methods of data collection were utilised:

1. Observation of classroom teaching,
2. Semi-structured interviews with students, teachers and curriculum specialists from the MoE,

3. Questionnaire survey of students,

4. Students' self-evaluation form.

Observation enabled me to record classroom dynamics before and during the implementation of the IE PBL module. The semi-structured interviews provided rich, qualitative data about people's responses to the IE PBL module. Interviews with students, teachers and curriculum specialists from the MoE happened after the IE PBL module intervention and were informed by the data gleaned from the observations. The questionnaires were completed by the same students twice and returned by 100 of them in the case study school. It provided me with information about students' attitudes towards IE before and after implementing the IE PBL module. The student self-evaluation form was completed and returned by 101 students where students provided an evaluation of their performance in the IE PBL module. The research design takes a pragmatic approach, which is explained in the following section.

5.2 The Research Design

Discourse about research design in social sciences often refers to 'research paradigms'. A choice of research paradigm is normally informed by the type of research being conducted and the philosophical outlook of the researcher. Two typical, and polarised, research paradigms are 'interpretivist' and 'positivist'. However, my research adopts a 'pragmatic' paradigm. This means that judgements about the research design are based on "what works" (Robson, 2011). I have opted for what I consider to be the best methods of data collection and analysis to provide valid responses to my research questions within the particular environmental and educational contexts of my research.

Two main reasons for employing a pragmatic approach in this research are; firstly, it allows me to pursue a deep understanding of the topic from the viewpoint of those involved, thereby giving me the chance to understand a set of rules within the context of a changing cultural framework. Secondly, the pragmatic approach gives me the opportunity to test the hypotheses of the study in real life situations.

The features of the pragmatic approach, according to Robson (2011), are observation, experience and experimentation. They are all valuable strategies for gaining a greater awareness of human beings, their cultural habits, the environments in which they live, and the ways in which they consider their own unique experiences. The pragmatic approach takes into account an understanding of participant perspectives by assessing the informants at points where they take a participatory role in practical applications. The ability to observe participants during the implementation of the IE PBL module enabled me to gain an understanding of how the students and teachers handled PBL within the context of IE in KB. In addition, the use of the information within the PBL approach undertaken in this study with regard to fieldwork comes from the students, teachers and designers of the Islamic curriculum.

The second main reason for using the pragmatic perspective is that according to Creswell (2009, p: 11) "The pragmatist researchers look to the what and how to research, based on the intended consequences – where they want to go with it", it is centred on the creation of hypotheses designed to clarify the real world, and to give researchers the opportunity to test out rational criteria (Robson, 2011). The research methods set out to examine how Bahraini students respond to PBL pedagogy in the context of IE. Thus, the aim of this study is to generate a hypothesis that PBL is/isn't an appropriate pedagogy for IE in KB. The PBL students are integral to the development of the learning process itself as they lie at the core of the process. Individual students are significant informative elements with regards to research on this subject (Blumberg, 2008). Consequently, the PBL activities need to be linked with societal structures designed to further facilitate learning environments (ibid). As such, in order for a researcher to comprehend such meanings, they must be allowed to proactively integrate themselves into the world of the individual undertaking the interaction (Denzin, 2009). After the foundation of research paradigms, the researcher can then use one or more methods, namely; the quantitative method and the qualitative method, or else combine the two into a mixture of approach methodologies that will inform the researcher on how they should undertake their research (Creswell, 2009).

With regard to the discussion above, the research design of the current study is a mixed methods approach. A mixed methods approach incorporates the employment of two methods: qualitative and quantitative research (Creswell & Plano Clark, 2011).The current study employed qualitative methods in the form of semi-structured interviews and observations to collect information.

Simultaneously, data of a quantitative nature are used in pre- and post-questionnaires to discover to what extent the IE PBL module has had an influence on students. In addition, self-evaluation forms were distributed to students to ascertain a percentage value with regard to skills and capabilities within their IE PBL module performance. Concurrently, the overall strategy for the research is a case study of a girls' secondary school, where I arranged for the IE PBL module to be implemented. From a pragmatic perspective, rather than concentrating on methodology, researchers are more concerned with understanding the study hypotheses, and then working out how to employ all available strategies to try and further their understanding (Creswell, 2009.) Therefore, the mixed method models allow the enquiry to be investigated from both quantitative and qualitative perspectives, and that is actively involved with the subject matter as it requires both of the forms of data; qualitative and quantitative (ibid).

In this research, qualitative data is utilised to try and define a particular component of the quantitative research; one which cannot necessarily be quantified (Morse, (1991) cited in Creswell, 2009). In this regard, this research intended to focus on participants' perspectives during interviews where a number of acts from the participants (students and teachers) could not be measured through quantitative data, such as the role of the student and the role of the teacher, here, qualitative data provided an opportunity to explore their roles in the new context of IE in a Bahraini school. Moreover, through observations, this research intended to explore how students learned before and after applying the IEPBL module.

In this study, the quantitative data are generated by pre- and post-questionnaires aimed at finding out to what extent the practices occurring in the teaching and learning before and after applying PBL in IEwhere 'practices in this study refer to the performance of teachers and students during teaching and learning'. Additionally, the pre- and post-questionnaires aimed to find out what students desired to learn in IE and how these desires could be achieved through applying the IE PBL module. In addition, students played a role in evaluating their own performance during theIE PBL module through student self-evaluation forms, these evaluations can be analysed quantitatively. Accordingly, the value of quantitative data becomes even clearer when accounting for personal biases and judgements, which can have the potential to influence results (Creswell & Plano Clark, 2011). In this research, the quantitative data is positivistic, and therefore keeps biased interpretations of qualitative data in check. In many ways, the primary

motivation behind the mixed method approach is the simple fact that it deepens awareness by assimilating qualitative and quantitative data and utilising one strategy to further understand the other (Creswell, 2009).

Moreover, the implementation of a mixed method approach offers increased support for the research questions, rather than focusing on one type of data collected. According to Creswell and Plano Clark (2011), study hypotheses require both exploration and explanation from various data sources. The explanation in the form of the quantitative data provides statistics and the qualitative data provides more descriptive results. For instance, the quantitative data is able to indicate that students may have deepened their understanding of the Quranic Verses and the Sunnah texts, while the qualitative data can explain why and how the IE PBL module played a role in understanding the sources of Islam. The explorations in this study present unexpected results such as the types of responsibility, increased faith, increased desire to work in a group and the challenges faced by the participants in the application of the IE PBL module. This approach is supported by Bryman (2006) who believes that mixed method approaches can be successfully employed if one of them produces unexpected findings which can be further understood by utilising the other.

The triangulation of different data sets in this research shows how the quantitative and qualitative data complement each other. This begins with the analysis of the questionnaire data, followed by an analysis and discussion of the observations and semi-structured interviews, then the quantitative and qualitative data are combined into one large discussion and the findings of both methods are presented alongside one another in chapters 6, 7, and 8. The final phase of the triangulation is the final discussion of the findings of the three research questions. This is formulated by finding the result of comparing pre- and post-questionnaires along with the results of the student self-evaluation form and the results of the qualitative data to find out the implications of PBL in IE in KB. In this regard, Creswell (2009, p. 214) supports my analysis, claiming that the data may reside side by side as two different pictures that provide an overall composite assessment of the problem; this would be the case when the researcher uses this approach to assess “different questions or different levels in an organization”.

From this explanation of the mixed method approach, it should now be clear that choosing a pragmatic approach enabled me to gain multiple insights into the various data forms, and gain a

deeper understanding of different aspects of the research problem. Yet, there are downsides to employing the mixed method approach. Combining strategies takes effort and needs expertise to fully understand the phenomenon through two different methods. It is also difficult to effectively carry out the same study in two different forms (Creswell, 2009; Creswell & Plano Clark, 2011). Although analysing and interpreting the data in this research was time consuming and took effort, more evidence can be gained from two methods which support me in combining the findings. Another downside of the mixed method approach is that it may create discrepancies between the qualitative and quantitative data, which has the potential to negatively affect the final outcome (Creswell, 2009; Creswell and Plano Clark, 2011). This research attempts to merge both quantitative and qualitative data in order to have a clear picture of how PBL works in IE in KB, this could enhance validity.

To conclude, the mixed methods approach within this study has given me the opportunity to interpret results from various different angles; from my perspective and the perspectives of students, teachers, and the designers of Islamic Education curriculums. Plus, it has helped me improve the overall validity of the study and find more valuable ways to interpret its findings. Mixed method research is valuable because it allows for 'the validation of findings in terms of their accuracy' (Denscombe, 2010, p. 140). As such, the combination of qualitative and quantitative strategies enabled me to gain a clearer picture of the study and make its results more accurate.

5.3 Case Study Strategy

This research takes a case study approach to assess PBL in IE in KB. The case study is a secondary girls' school, which I have given the pseudonym "Amwaj Secondary Girls' School". In the whole of the KB there are thirty five secondary, (sixteen male and nineteen female) schools. In this study, this level of education was selected from one of five governorates in KB, in which there are different kinds of primary, intermediate and secondary schools for boys and for girls. In particular, there are six schools within the secondary level (three male and three female schools) in the selected governorate. I selected the Amwaj Secondary Girls' School as a case study for this research which consists of one thousand and seventy four students, as there is

no means by which I as a female researcher can enter a male school due to restrictions of the law and MoE regulations in KB. I selected this particular girls' school as I live nearby and worked there previously, thus I was acquainted with the staff and this made it more accessible for me to apply my research there.

Punch (2005. p.145) defines the case study as a "bounded system" where the border between the context and the case itself is not always clear, and the researcher needs to clarify the problem of defining these boundaries. For this study, the context of the case study is "Amwaj Secondary Girls' School" and the fundamental nature of the research is implementing a novel teaching method through the IE PBL module. In particular, it included four classes of grade eleven female students aged 17. Other boundaries are formed through the use of the temporal restrictions as a result of the lessons the students took within the PBL module; a seven-week timeframe covering ten topics.

I have selected a case study approach because it allows for multiple sources of data collection and so provides the opportunity to gain an in-depth understanding of real life situations, which enhances the validity of the research (Denscombe, 2010). Secondly, this strategy enables me to describe and explain issues related to the study that might not be accessible through other methods of inquiry. Rowley claims that "Case studies are one approach that supports deeper and more detailed investigation of the type that is normally necessary to answer how and why questions" (2002, p. 17). With reference to the literature reviewed in this study, case studies were widely used to investigate the application of PBL in many disciplines such as education, maths, sciences and medicine (Samsonov et al., 2006; Closson 2011; Li, 2012; Bessant et al., 2013). However, there is no literature related to teaching IE in KB and employing the PBL module; this also informed my choice to use a case study.

Savin-Baden and Major (2004) have also claimed that case studies remain the most comprehensive means by which to determine the worth of PBL. This influences my choice of employing a case study approach in this research to determine the appropriateness of the IE PBL module and particularly with regard to its educational outcomes as active practice and to reveal how it works in real life situations. Accordingly, mixed methods were required to find out if PBL does or does not work in a new context such as IE in KB. In this regard, utilizing interviews, observations, questionnaires and the student self-evaluation form allowed me to deeply

investigate the phenomenon within the study. This is supported by Baxter and Jack (2008) who state that all issues are to be seen through a multitude of 'lenses' in order to determine their multifaceted nature.

The type of case study can be exploratory, explanatory or descriptive (Yin, 2013); this research was exploratory and explanatory. The exploratory type of case study permits a detailed assessment of an exact sample population. The current study is exploratory since it aims to "investigate a little-understood phenomenon" and to "generate hypotheses for further research" (Marshall & Rossman, 1999, P.33). In this type of research, the researcher is concerned with investigating a situation where little or no information is available or known about the phenomenon in question. Patton (2002) stated that exploratory research intends to assimilate exploratory information in order to better comprehend and to understand the study in hand. The current study aims to explore if the IE PBL module will enhance learning to meet the MoE's learning aims for IE, as this research intends to determine the value of implementing PBL in IE within the school in KB.

Furthermore, the current research can be considered as explanatory because it provides a clear explanation of the implementation of an IE PBL module in a new context. The current study offers a detailed investigation of a particular school and a certain group of students. It is also an illustration of whether the IE PBL module can help students to increase or widen their learning skills within IE. In order to see students interacting with each other, the research needs to observe them, follow the teachers in class, and record their interactions closely (Yin, 2009).

On the other hand, a number of limitations are raised regarding applying the strategy of case study. Yin (2009) claims the lack of rigour in a case study can be avoided by using more than one method in a particular study. This study uses multiple methods to avoid this limitation. Another limitation it that the case study as a research approach is not intended to provide a generalizable conclusion. In general, however, it is generalizable to "theoretical propositions and not to populations or universes" (Yin, 2009, p. 15). Case studies can generate analytic generalizations rather that statistical generalizations (ibid). Nonetheless, the mixed methods approach of the research design of this study allows frequencies to be calculated in order to create statistics for a particular case (Creswell & Plano Clark, 2011). With regard to this research, the study seeks to incorporate the PBL approach into the secondary level of IE in the

KB, the findings are more likely to be able to be generalised because the case study is representative. It is possible to generalise the research findings to all 11th grade female students in “Provisions of the family in Islam (201)” in the KB, since their age, grade, gender, physical location, and studied subjects, as well as the applicable education policy, are the same. However, variables affecting generalisation, such as teacher acceptance, other IE subjects and class dynamics must be taken into consideration. So, generalisation is enhanced by representative of the case study but limited by the small number of the respondents and the qualitative data.

Subjectivity is a further limitation of case study research. However, Simons (2009, p. 163) argues that “subjectivity is not something we can avoid whatever methods we adopt, though it is more visible in qualitative inquiry where people, including the researcher, are an inherent part of the case”. Moreover, she claims that research subjectivity can be decreased when you as a researcher “acknowledge its inherent subjectivity and concentrate on demonstrating how your values, predispositions and feelings impact upon research” (ibid). Furthermore, applying the “Mixed method approach” in this research avoids this limitation where the qualitative data in individual interpretations is eliminated by utilizing the quantitative data (Creswell and Plano Clark, 2011).

5.4 The Sample

Sampling is a vital process for both qualitative and quantitative research as it is difficult for a researcher to study the entire population. The sample refers to “the segment of the population that is selected for investigation” (Bryman, 2008, p. 87).

For this study, the purposive sample was based on the aims of the study, which can be used as a means to enable the researcher get the best information from the people most likely to have the experience or expertise to provide quality information and valuable insights on the research topic (Denscombe, 2010). It represents the “people who are uniquely able to be informative because they are ... privileged witnesses to an event” (Maxwell, 2012, p. 97). A purposive sample is the most common sampling technique utilized in case study research and emerged as a practical option for the current study.

Furthermore, the sample in this study can be classified as a convenience sample as it is simply available to the researcher by virtue of its accessibility (Bryman, 2008; Gay &Airasian, 2003); (Bell, 2005). Thus the sample of the current research is a combination of purposive and convenience aiming at obtaining rich data from its population. This sample consists of students, teachers and curriculum specialists. The PBL intervention focused on the IE module 'Provisions of the family in Islam'; the timetabling of the module matched my research calendar for the four classes selected, and the two teachers of these four classes agreed to participate in the research. The teachers and the students were all from the Amwaj Secondary Girls' School in KB.

I chose this school because it is appropriate for the case study that I was doing. Also, the selection of this school in particular was due to its closeness to the area where I live. I was a former student for three years there, and after graduation worked there as a full time teacher for five years. Thus, familiarity with the place made feasible for me to access it and develop relationships with teachers and administrators, as argued by Cohen et al. (2010). Accessibility to the setting is essential, though not always simple; however, in this case it has been achieved. Purposive and convenience sampling was adopted for this study to entail the selection of participants who were available and also willing to participate in this study and have things to say that are relevant to the research aim and focus.

The Amwaj Secondary Girls' School is located in a region of KB where there are one thousand and seventy-four students in the whole school. Each of the four classes selected from grade eleven comprises of twenty eight students. One hundred and twelve female students represent the total sample of students. The interview sample consists of nineteen students, two teachers of IE and three curriculum specialists from the MoE. Nineteen students were selected for interview and three curriculum specialists (of Islamic education) from the possible seven working ones within the MoE. All of the interviewed participants participated voluntarily. After the nineteen students' and three curriculum specialists' interviews, I felt that interviewing more students and curriculum specialists would not add anything new concerning the questions asked, this is due to repetition in the interviews I had already conducted, therefore I judged that my data had reached a point of saturation (Mason, 2002). Regarding the IE teacher sample, two of the teachers that teach the PBL module were accessible; they graduated from Bahrain University and they were

qualified as teachers of IE. One of them has been teaching IE for ten years and another for eight years.

As the research design combined qualitative and quantitative approaches, it required two different methods of data collection. The qualitative data originated from observations and semi-structured interviews of nineteen students, two teachers of IE and three curriculum specialists from the MoE. The quantitative data originated from the questionnaires and student self-evaluation forms, both were given to one hundred and twelve female students to fill in, more details will be discussed in the section 5.5.4 ‘quantitative data’.

5.5 Methods of Data Collection

5.5.1 Observation

As defined by Hennink et al. (2011), observation is a useful research tool for the methodical documentation of the behaviours, actions and interactions of individuals. Moreover, it enables the collection of information from first-hand accounts (Denscombe, 2010). This can be linked directly to the pragmatic claim that one can apply hypotheses in real life situations to find out the practical implications of these hypotheses. Thus, it is possible to create a more comprehensive picture of learning behaviour to attain a better understanding of the teaching strategies implemented in secondary schools in KB as well as how the PBL process applies.

Observing the teaching methods applied in IE was the initial phase of the field research. Once the MoE gave consent, I went to the “Amwaj Secondary Girls’ School” in the middle of term. Once I arrived, I requested to meet the head mistress to hand her the consent form. After half an hour, I met her and she transferred me to the head teacher of the Islamic department. I was lucky that I worked with the head teacher before, she welcomed me and I explained to her that I was a PhD researcher and the purpose of my research. During the break time in the same day, the head teacher and I met the four IE teachers and she explained to them that I would like to attend their classes indicating the reason that I was there was to evaluate the teaching and learning process and not evaluate the teachers and students themselves. The four teachers agreed for me to attend their classes. Hence, the head teacher arranged a timetable to attend the classes. However, during my journey to observe what were available from ten classes of four teachers in grade 10 in

different days, while I was knocking on the door the teacher noted that she had a test and there was nothing to observe. However, at the same time another teacher mentioned that she had a test but I was welcome to attend her class and she provided me with a copy of the test.

During the field research, I completed unstructured observations of twenty sessions. In every session a teacher explained to the students the purpose of me attending these sessions. This initial phase of observation was to observe the teaching and learning methods of teachers and students for the purpose of evaluating the manner in which teachers conveyed knowledge, and the aptitudes of the students. The reason for this was to focus on the teaching experience (how they teach and deliver knowledge to students) and assess Bahraini students' abilities specifically, expressing and accepting other people's views, aptitude to make an argument and engaging in discussion. As a result, this raised my awareness and enabled me to design the IE PBL module within the context of IE efficiently. I found that the teaching methods included in the textbooks of IE were based on an instructional teaching model and therefore were inappropriate for stimulating students to form their own ideas and thoughts about a topic. Thus, I created a PBL module consisting of ten topics, in keeping with the aim of assisting the development of student learning skills to facilitate the learning process and encourage students to think for themselves.

In the second phase of the field research I used semi-structured observations to observe the implementation of the IE PBL module in the same classes in which the first round of observations had taken place. I allocated eight hours weekly for four classes to collect observations about the PBL process.

In semi-structured observations the researcher focuses on how to gather the data in the observed scenes and uses a pre-arranged process for this purpose. That is to say; besides taking notes about any information or behaviour that may occur when observing, the researcher needs to consider in advance a few facts, events and behaviours related to the research issue using forms, questions, themes… etc to be used as reminders to ensure the focus is on relevant points and in turn, reduce the possibility of forgetting or omitting any necessary and relevant information (O'leary, 2014). Since the purpose of PBL is to ensure that, in addition to acquiring knowledge, learners are also capable to apply it in the correct manner and at the right time, evaluating students in problem-solving situations is necessary to determine their ability to put the acquired knowledge into practice. In this regard, assessment was based on observations of teacher-student

and student-student interactions as well as of open discussions held at the end of every session. The unfolding of the PBL processes and the interactions and attitudes related to both small group and open discussions constituted the main points of observation. More specifically, I concentrated on several aspects of student learning in this stage, including the manner in which students responded to problems and used the available resources to solve them, as well as how to weigh the evidence, make comparisons between and among different ideas, and their analysis and decision-making processes (see Appendix 11).

The most impartial and accurate data related to a subject under investigation can be derived from covert observation. However, this practice raises ethical considerations about participant unawareness and therefore Flick (2009) recommended that it should not be used. On the other hand, participant observation is not employed in this study either, even though it provides valuable insight and allows the researcher to establish relationships with the participants and hence to acquire more comprehensive and detailed data (Flick, 2009).

To achieve the research goal of understanding the PBL module in the natural setting, non-participant observation is used, without any interference in the process. According to Hennink et al. (2011), non-participant observation is a practice in which the researcher observes activities or individuals of interest from a distance, without getting involved. In the present study, non-participant observation was chosen to reduce the effect of the observation process on the PBL module as much as possible and gain ample data about the new approach in teaching and learning IE in KB. Consequently, I did not participate in the activities under observation. The non- participant approach was found by Hennink et al. (2011) to be particularly challenging, as it is near impossible for the researcher not to become involved in the settings under observation, and the researcher's presence or actions may have an effect on the participants. In the present case, both teachers and students might be influenced by the presence of an observer in the classroom. Therefore, to set them more at ease, I explained to the teachers and students that the data gathered were for my own research purposes and not to assess them. In any circumstances, the observer should seek to remain objective and unprejudiced. Due to my frequent class attendance, the teachers and students became accustomed to my presence and thus their setting was natural. Consequently, I was able to attain a valuable insight into the activities through observation without participation. Moreover, by not getting involved and remaining at a distance,

the observer can listen more intently and take notes unhindered (Hennink et al., 2011). Non-participant observation represents purposeful observation from a distance and not deceitful observation.

In this study, the non-participant observation being employed to ensure data accuracy, I paid particular attention to how the teacher moved among groups and the assistance she supplied, whether in the form of suggestions of useful resources or lines of investigation or even the provision of actual answers. Based on group requirements, the teacher allocated between 45 seconds and 10 minutes to each group. Furthermore, to be able to observe and evaluate the students' research skills, I was positioned in close proximity to the groups. As noted by Denscombe (2010), the assumption underlying observation is that witnessing events or activities directly is most useful for particular purposes. Recognising that group assessments involve a certain degree of difficulty, Samsonov et al. (2006) indicated that observation of four pairs was manageable and fostered discussion among them.

To maximise the amount of data collected, audio recording and semi-structured observation were the methods used in session observation. Audio recording is a highly useful tool for the observer, to ensure as much information as possible is captured, particularly when groups are divided into smaller ones during group work, making it practically impossible for the observer to keep track of every activity going on. Furthermore, by audio recording all activities, the observer can focus on the competences of the students to solve problems, the extent to which they can self-manage, as well as their teamwork skills. In addition, audio recording also enables me to go back to the complex aspects of students' interactions during the PBL group work that happened in quick succession.

Methods of data recording are still necessary even when the observer gives his/her full attention to the subject of interest. The audio recorder is the most useful method in this regard, as it maintains the sequence of communication (Silverman, 2011). However, it must be borne in mind that the audio recorder is an intrusive device introduced in the context of IE PBL module group work, therefore, care needs to be taken so as to reduce its influence of the behaviour of participants. The figure below shows the recorder's settings within the IE PBL module team work in lesson 1 as an example.

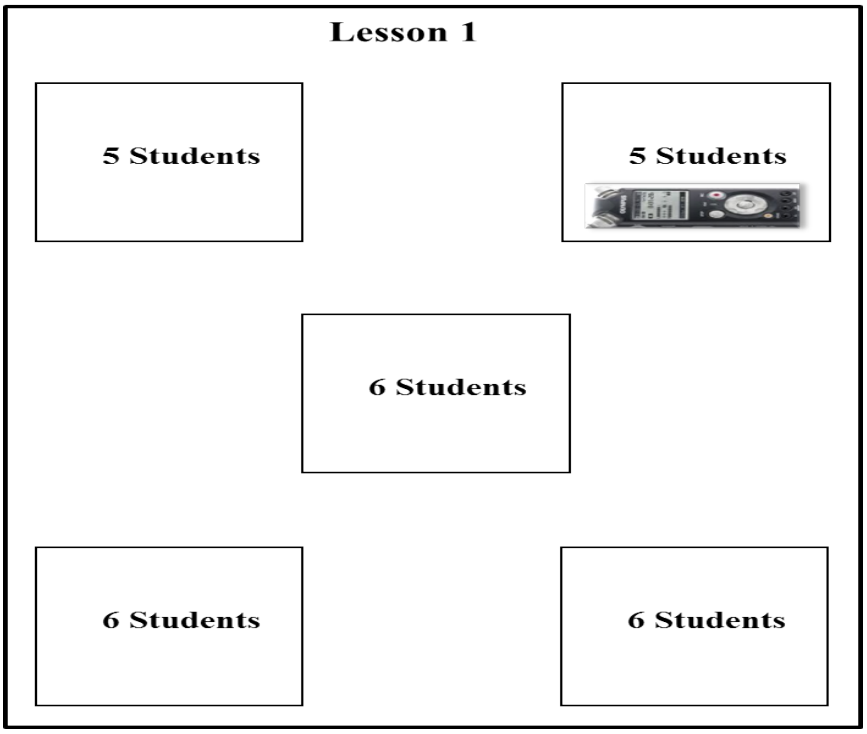


Figure (5) Tape recorder settings within the IE PBL module team work lesson 1

The settings of the audio-recorder are indicated in Figure (5). Each one of the observed PBL groups was organised in the same way as a regular session, with students being divided into groups of between five and six seated at a rectangular table for problem discussion. In every session, the audio recorder was positioned in a different group, until all groups were covered. The data from the audio-recorder was not fully transcribed but used to boost my memory and obtain necessary details from the particular group where the audio-recorder was placed.

Students were arranged into groups according to the comments and considerations of the teachers, since they had a good knowledge of the abilities of each student and could ensure group diversity in terms of academic competence (Nias, 2006). Teachers' input has been extremely valuable to me in understanding the academic strengths and weaknesses of each student. This is especially important, given that this study seeks to be of assistance to students in their academic development and the gaining of various transferable skills on the basis of their individual learning styles.

In order to gain an insight into the students' thought processes and their approaches to solving problems, the guidelines of the PBL process, outlined during the group discussion, were gathered from each group at the end of each session. In relation to this process, the study relied on the collection of qualitative data, although previous studies have prioritised the collection of quantitative data; Grandau (2005) for instance, justified the use of quantitative data by stating that such data facilitated "to closely examine individual students' 'thinking'" (2005, p. 213). Associated with the pragmatic' view on what works and how, throughout this research the guidelines of the PBL process have helped me to shed light on the way in which the PBL process was applied by the students' groups.

As highlighted by Saven-Baden (2007), there are considerable challenges in the interpretation and classification of observed behaviours, particularly as the act of observation has a significant effect on individual behaviours. Due to such limitations, Hennink et al. (2011) argued that, to ensure complementarity of data and promote a comprehensive and multi-faceted understanding of a subject, observation should be used in conjunction with other qualitative methods, like in-depth interviews. The observation method under the pragmatic view aims to understand the reactions of students and teachers towards the PBL module through real life situations. Thus, in the following part, the use of face-to-face semi-structured interviews is discussed. To gain a detailed understanding of the research data, the interviews were concentrated on participant experience, thus complementing the observation method, which focused on the PBL process.

5.5.2 Interviews

The semi-structured interviews were the second source used in order to gain an understanding of how the student participants felt about IE PBL module, their experiences with PBL and their opinions on what they had learnt through PBL. The purpose of the interviews was also to gather information from curriculum specialists and teachers regarding their viewpoints on PBL. Semi-structured interviews were used as a way of obtaining detailed data and as a main source of evidence in this research. Each participant met with the researcher separately for the interview. Each interview was audio recorded; this technique allowed the interviews' to be replayed to give a more general idea of the information collected (Silverman, 2011), and to type up the transcripts.

The interview method met the pragmatic approach of the overall research design because the interviews with students and teachers aimed to find out how these participants viewed their own experiences. These perspectives are used to test the application of PBL in IE in KB. A total of 24 participants involved in the IE PBL module were interviewed, of which nineteen were students, two teachers and three curriculum specialists respectively. To arrange interviews with students, the administration of the school organised the time and place to interview the students, although a lot of effort was spent by the administration to arrange a convenient timetable for me and the students, this was difficult to manage. Therefore the administration suggested to me that I should be available full time to be able to take any chance to meet with students such as teacher absence or general activities,this suggested solution was implemented successfully. During the interviews, probing questions were used to elicit students' comments and concerns; additionally, at the end of the interview, there was an open question to allow them to freely express their opinions. In the same manner, the interviews were conducted with the teachers and curriculum specialists, after I had covered the large number of student interviews. After I completed the interviews in the school, I went to the MoE to interview the specialists.

I chose to conduct semi-structured interviews in order to interact directly with the participants and attain an insight into their experiences and views of the PBL process. However, I was aware of the fact that the capability of the participants to articulate, conceptualise and recall their experiences has a significant impact on the interviewing process. At the same time, I considered that this capability could not be outlined from the observation method alone. Similarly, Patton (2002) argued that interviewing is geared towards acquiring information about the ideas, perspectives and interests of different individuals. More specifically, interviewing is intended to shed light on those aspects that cannot be observed directly. Another reason for carrying out interviews in this study was to attain the participants' views on the PBL process to obtain rich and personalised explanations for the events that I observed.

Of the benefits of interviewing as a method of data collection highlighted by Burns (2000), flexibility, probing and compatibility with complex subjects are particularly significant for this study. Interviewing is a flexible process which enables the interviewer to reiterate questions or clarify their meaning if the interviewees have not understood them. Furthermore, interviewing permits the interviewer to encourage interviewees to provide answers that are more complete or

to the point by resorting to probing questions. Burns (2000, p. 583) additionally observed that interviewing is of invaluable help in acquiring comprehensive data related to a limited number of subjects of considerable complexity. Since the aim of this study is to attain an understanding of the PBL module, the interview method is therefore highly appropriate.

As mentioned above, the semi-structured interview is used in order to acquire data about the perceptions of the participants and thus be better able to answer the research questions. This type of interview, as emphasised by Denscombe (2010) requires the interviewer to possess good knowledge of every subject that has to be addressed. In the present case, the purpose of using the semi-structured interview was to offer participants the opportunity to convey their views on the potential incorporation of PBL into IE. Compared to structured and unstructured interviews, the semi-structured interview is advantageous because it possesses flexibility, enabling the interviewer to ask additional questions based on the answers given by the participants as well as to request participants to clarify ambiguous answers (Kvale, 2007;Denzin & Lincoln, 2003).

To frame the semi-structured interview, this study used a flexible interview guide without fixed phrasing or order of questions. The interview questions were perfected by conducting two series of pilot interviews with two students involved in the IE PBL module. The reason for choosing students for the pilot interviews was that they accounted for the largest proportion of the research sample, the number of teachers and curriculum specialists being just two and three, respectively.

Anticipating the interpretation that interviewees will assign to the interview questions is challenging, that is why pilot interviews are of such great importance (Hennink et al., 2011). In order to gather the data required to answer the research questions outlined in the first chapter, the questions in the pilot interviews were formulated in accordance with the research questions, aims and the literature review.

The aim of the pilot ‘semi-structured interview’ was to gather information about the research before having actual semi-structured interviews. The answers given by the pilot interview participants were used to alter the initial series of questions accordingly. Some questions were rephrased to make it easier for the interviewees to understand them, whilst others were removed and new ones were formulated instead. For instance, in keeping with the results of the pilot interviews, questions such as “What impressions has the first-time experience of the IE PBL

module given you?" were substituted with questions such as "As a novel learning method, the IE PBL module has both strengths and weaknesses. In your opinion, what are some of these strengths and weaknesses?" The purpose of such question restructuring was to encourage the interviewees to be more explicit and honest in their answers. During the pilot interviews it was observed that the participants became more open in their answers after they started to talk about the issues that confronted them as well as the benefits of the IE PBL module.

The time allocated for each interview was also adjusted based on the pilot interviews which were allowed 55 minutes but only ran for 40 and 45 minutes. Subsequently, the final interview questions for the students, teachers and curriculum specialists were formulated (see Appendixes 12, 13 and 14).

A discussion of sampling has been provided in the discussion (section 5.4) above. To enable the participants to convey their views clearly, the interviews were carried out in their primary language, Arabic. Then, I transcribed the interviews and translated them into English, taking care to capture the general meaning accurately, rather than using literal translations, in order to get a more sensible understanding of the meaning (Hennink et al., 2011). The interviews with the students and teachers were undertaken in a room in the school which was inaccessible to the classmates of the participants, whereas the curriculum specialists were interviewed in a conference room on their own at the MoE.

Fontana and Frey (2000, p. 367) have identified a number of factors that shape the information provided by participants, including their knowledge, memory and capacity to express information precisely as well as the perception they want to convey to outsiders like interviewers. To deal with the implications of this issue and to reinforce the interview data collected several other methods of data collection were used in this study, including observation, questionnaire and student self-evaluation form from which quantitative data were also gathered to create a more comprehensive picture of the PBL module.

5.5.3 Considerations of Validity and Reliability in Qualitative Research

In any type of research, it is essential to ensure that data collection methods and results are accurate and credible. Validity is considered to be a strong point of qualitative research. The

accuracy of the results must be verified not only from the perspective of the researcher, but also from the perspective of the participants. Typically, 'validity' and 'credibility' are used in qualitative research to indicate that the findings are genuine.

Cohen et al. (2010) argued that internal validity can be applied in several ways. One way to ensure internal validity in this research is the research design uses a mixed method approach utilising qualitative and quantitative data. The triangulation method was employed as the data were derived from different sources. As suggested by Silverman (2011), comparisons should be undertaken between quantitative and qualitative and between different data collection methods (observation and interviews) to determine their level of validity. Data triangulation was conducted in this study by comparing the four data sources, namely, interview, observation, questionnaire, and student self-evaluation form. The procedure of using mixed methods discussed in (section 5.2) was employed to validate both quantitative and qualitative data.

As previously mentioned, one-to-one interviews and non-participant observation were used to acquire data for methodological triangulation. An unstructured observational strategy was applied to observe, in the first phase, the teaching methods employed in IE, and in the second phase the semi-structured observational strategy was utilized to observe the IE PBL module related discussion sessions among students. Despite being a highly efficient method of data collection, observation has a major limitation in that the data gathered is intentionally or unintentionally shaped by the perceptions of the researcher, who may focus more on some behaviour than on others, depending on his/her background and understanding. Unintended researcher bias may affect the validity of the research. However, semi-structured observation was employed to avoid omission of any important points such as the role of the teacher, the role of the students, group work...etc. In addition, after data collection, the triangulation of data sets is a further way check and implements validity. Due to observation limitations, interviews were also conducted to attain first-hand data from the participants. The two methods helped to create a more comprehensive picture, as the observation was informative about the range of activities underway before and after applying IE PBL module discussion sessions, the interviews afforded an insight into the thought and reasoning processes of the participants.

Another internal validation method is "persistent observations", which were applied during the lessons. For example, students and teachers were observed during 40 lessons in order to find out

how the IE PBL module worked in KB (Cohen et al, 2010, p. 136). In addition, as Cohen et al. stated, audio-recorders was used for internal validity in both the observations and the interviews to retrieve the data in this research.

External validity regards to what level the findings of a research can be generalized to other cases and people. In this regard, Cohen et al. (2010) claim that it is likely to assess the participants and settings by comparing them with other groups and other situations to find out how the data could be converted into other situations and cultures. However, Lincoln and Guba (1985) argued that threats to external validity may occur in cases such as where the study was applied to a certain group but could not be applied to another group, as the context and history may differ. This research intends to integrate the PBL approach into the secondary level of IE in KB. The case study is representative, it could be generalised to another secondary girls' school for year 11 in the subject "Provisions of the family in Islam (201)" in KB as the context and other circumstances such as grade, gender, physical location and education policy are similar but within limits, due to the sample size and qualitative data. This enhances reliability because it is more likely to be able to be generalised to similar cases. However, teacher agreement, other IE subjects and class environment need to be considered during generalisation. Also, it cannot be generalized without further research. Moreover, the results of this study correspond with other published research in the field with regard to, for example, a task "problem", the role of the students, and challenges faced, which is discussed in following chapters 6, 7 and 8. Moreover, Lincoln and Guba (1985) suggest that, in order to enable readers to assess the extent to which the findings related to the context of one research are transferable to other similar contexts, detailed descriptions of data should be integrated with working assumptions. In this study, interviews conducted were transcribed by myself, which alongside non-participant observation offered me rich personalised explanations. These detailed descriptions were generated as a way of accomplishing transferability (Glesne, 2011).

Furthermore, it can be argued that utilizing different methods may offer greater trust and reliability through a mixture of findings, as each method has its own limits as is mentioned above. In this regard, Denzin (1990. p. 592) claims that "Interpretations which are built upon triangulation are certain to be stronger than those which rest on the more constructed framework of a single method".

To facilitate readers' understanding of the manner in which the researcher interpreted the findings, the research procedures regarding data collection and analysis, including interview formulation and settings, and procedures and length of observation, are clearly outlined in later sections.

5.5.4 Quantitative Data: Questionnaire and Student Self-evaluation Form

This study used questionnaires distributed to the same respondents before and after the PBL process, as well as student self-evaluation forms. Quantitative data enabled me to interpret the data and address the research questions objectively. In addition, the quantitative and qualitative data were compounded so the outcomes could be used to strengthen each other (Creswell, 2009). As previously highlighted in the research design section, the mixed approach creates a complete picture of the subject under investigation.

Quantitative research, as defined by Miller and Brewer (2003), is designed to measure numerically particular dimensions of a subject. As a highly structured approach, it permits the formulation of opposing interpretations with regard to correlations among variables. On the other hand, qualitative research is geared towards the in-depth analysis of multiple aspects of one or a limited number of subjects; thus, qualitative research does not compact information, but expands it. Nevertheless, the use of the quantitative method for the questionnaire presents some considerable advantages, as a statistical test provides the researcher with credibility when interpreting the data; this gives the researcher confidence in their outcomes. In addition, presenting data in the form of tables and charts is an efficient way of arranging quantities data and communicating the results to others (Denscombe, 2010). In this regard, to verify the significance of the difference between the practices occurred during the teaching and learning of Islamic Education in the pre and post questionnaires, an appropriate statistical test is needed. There are two approaches that can be followed: parametric and non-parametric. If the data is normally distributed then, parametric methods are applied, otherwise I use nonparametric methods. Since the interest is the same groups in the pre and post questionnaires, the sample is considered as paired (matched) data. In the case of parametric, paired t-test is used to find the significant mean difference. On the other hand, if the data is not normally distributed, then

Wilcoxon signed Ranks Test using median is applied to find out whether the PBL works or not in IE in KB (Bryman & Cramer, 1993).

However, questionnaires are not without limitations. One major disadvantage is that participants have no one to turn to if they need clarification, and the researcher cannot probe the participants to explain their responses further and cannot follow-up on some questions to acquire additional data, as in the interview (Bryman, 2001). Furthermore, Denscombe (2010) mentioned that participant answers can be influenced by the structure of the questionnaire, which therefore is more indicative of the researcher's thought processes instead of those of the participants. To address this issue, the triangulation method was applied in this study to complement quantitative and qualitative data and this helped me create links between them, and the validity of these two methods was identified. On the other hand, questionnaires are useful because they avoid interviewer bias and can be answered by participants at their own pace, in whichever order and whenever they want (Bryman, 2001).

The questionnaire and self-evaluation form were originally formulated in English, both were then translated into Arabic by the researcher and reviewed by a professional translator from the Bahrain teacher college at Bahrain University. The questionnaires and self-evaluation forms were distributed to participants once their formulation was approved by the MoE.

The pre-questionnaire intended to provide a "mean" of the students' performance and teaching and learning styles in IE before applying PBL. It consists of two sections: Section (1): To what extent are the following practices incorporated in teaching and learning methods within the context of Islamic education? And section (2): To what extent do you wish to become familiar with the following practices implemented in Islamic education? An example of the pre-questionnaire is provided in appendix 15.

The post-questionnaire provided a "mean" of the students' performance in PBL and the different aspects of the PBL process which had an impact on student learning and consisted of two sections: Section (1): To what extent is problem-based learning (PBL) used in the following practices in Islamic education? Section (2): How often did you engage in practices incorporating PBL during the course of Islamic education? An example of the post-questionnaire is provided in appendix 16. Similarly, Bessant et al. (2013) successfully identified the effective PBL features

by making use of a post-implementation questionnaire to gather data to determine the extent to which students acquired new skills and put them into practice, whilst this research applied the pre- and post-questionnaires to find out how PBL works in IE in KB.

Two sources of information were consulted for the formulation of the questionnaires. The first source was the experience accumulated by me during a decade of working as a teacher and a lecturer in the Bahrain University and during pre-PBL observations. The second source was the extensive review of literature on PBL in general and on teaching and learning within the context of Islamic education in particular. The most prominent studies in this regard were those conducted by Ahmed (1993), Altaraki (2008), Li, (2012) and Bessant et al. (2013). The development of the questionnaires drew from these studies. In this regard, Oppenheim emphasized that "sometimes we can borrow or adapt questionnaires from other researchers" (1992, p. 47).

Moreover, self-evaluation forms were also employed to attain percentages associated with students' PBL performance-related skills and abilities. The purpose of using of such form is for students to appraise their performance at the end of the course (Delise, 1997). The student self-evaluation form used in this study was adapted from Delise (1997, p. 36) which consisted of six assessments, the only exception being that the third point, "usage of a wide range of resources for conducting research", was modified to "I used the sources of Islam when solving the problems" (see appendix 17). This was necessary because the resources available to students were limited to the textbook and their Islamic resources.

The pre- and post-questionnaires each consisted of 16 closed-ended questions. The table below demonstrates the number of questionnaires distributed and collected:

Survey	Distribution	Returned	Absent
Pre-questionnaires	112	107	5
Post-questionnaires	112	105	7
total	224	212	12

Table (3) The distribution and collection of the pre- and post-questionnaires

The table above shows that in the pre-questionnaire, a total of 112 questionnaires were distributed, 107 questionnaires were completed and returned. In the post-questionnaire a total of 112 questionnaires were distributed. By the end of the survey period, data had been collected from 105 individuals since 5 students had not been in attendance for the pre-questionnaire and 7 students were absent in the post-questionnaire. The 5 participants who had not completed the pre-questionnaire were excluded from the post questionnaire. Similarly, the 7 participants who had not completed the post-questionnaire were excluded from the pre-questionnaire; to make sense of the data only 200 questionnaires were calculated because 24 questionnaires were not completed in both pre- and post-questionnaires. In addition, 112 self-evaluation forms were distributed to students, 101 forms were completed and returned.

Closed-ended questions were used because they can be answered rapidly and are straightforward to code (Cohen et al., 2010; Bryman, 2001). On the other hand, closed-ended questions require the researcher to supply all possible answers, the participants merely selecting the answers as they see fit (Bryman, 2001). Bearing in mind the limitations of closed-ended questions, careful attention was paid to ensure that all possible answers were covered by the limited series of answers supplied. Furthermore, closed-ended questions were also used due to the research context, time restrictions and questionnaire length.

The questionnaires were accompanied by a cover letter in which the research title, objectives, the researcher's position and identity were outlined. The significance of the study was particularly emphasised to encourage individuals to get involved. The participants were assured that the data provided would be confidential and their anonymity would be preserved (see appendix15 and 16). I distributed and collected the pre-questionnaires while teachers were entrusted with distributing and collecting the completed post-questionnaires and student self-evaluation forms from the students.

5.5.5 Considerations of Validity and Reliability in Quantitative Research

The questionnaires employed in this study were evaluated in terms of validity and reliability to ensure that the results obtained were as accurate as possible. Cohen et al. (2010) stresses that for a study to be efficient and relevant, it must be valid first and foremost. Validity means that the researcher truly measured what they intended to measure, and that the students actually

understood the questions clearly. Therefore, to determine how valid the questionnaires were, several procedures were undertaken in this study:

- Arbitrators' opinions: The advice and recommendations of four curriculum specialists, one of whom specialised in statistics at the MoE and two lecturers of Islamic education at Bahrain University were taken into account by the researcher when formulating the questionnaires (see appendix 18). The questionnaire draft was submitted to these specialists for evaluation. They focused on several aspects, including the relevance of the questionnaire items for the research questions and objectives, the suitability and clarity of the language used, as well as the accuracy of the terminology used. The specialists were requested to provide recommendations and comments. This was done in accordance with Creswell (2012), who stated that, prior to commencing the study; the researcher should seek external feedback from peers, experts, specialists or other professionals working in a subject-related field. The experts' opinions highlighted some issues with regard to completing the questionnaire. Thus, the questions were accordingly adjusted by rephrasing, rearranging or expanding them to make the answering process easier for participants. More specifically, the adjustments made to the questionnaires prior to the main survey included the addition of one question in the first section, bringing the number of full questions to sixteen, and the rewording of three questions to make them clearer.

- The validity of the questionnaire is measured by employing a pilot study. The main purpose of the pilot study in this case was to determine whether the questionnaires were clear enough for the participants and to make any amendments where necessary, as suggested by Oppenheim (1992). To attain access to the target school, I had to submit the Arabic version of the questionnaires to the MoE in KB. Before commencing the field research, a pilot study was conducted, in keeping with Oppenheim (1992),who emphasised that each question, question order, inventory and scale included in the research had to be evaluated in a pilot study. The pilot study was carried out during the period 1st-24th of June, 2013, at Amwaj Secondary Girls' School where 33 draft questionnaires were distributed among students, 30 were completed and sent back, which

was an acceptable proportion. The students who completed the pilot study were different to the students who completed the final questionnaires.

I employed SPSS statistical tools to input and assess the pilot results, the result of the initial analysing of pilot data confirmed that the measuring of the questionnaires were suitable for the research.

- Internal consistency: The internal consistency is determined by calculating the correlation coefficients (Pearson Correlation) between the phrases and the overall score of the scale. The results obtained are shown in the table below:

phrases	Pearson Correlation	phrases	Pearson Correlation
1	0.601**	9	0.801**
2	0.819**	10	0.516**
3	0.639**	11	0.624**
4	0.469**	12	0.703**
5	0.820**	13	0.617**
6	0.437*	14	0.689**
7	0.722**	15	0.803**
8	0.823**	16	0.605**

** Correlation is significant at the 0.01 level

* Correlation is significant at the 0.05 level

Table (4) Correlation coefficients between the phrases, and the total score of the scale

The above table shows that most of the phrases have a high degree of correlation with the total score of the scale from (.437-.823) which means that the phrases in the questionnaire measure the main question in the questionnaire. As shown in the table above, correlations were statistically significant, (0.01- 0.05) suggesting that internal consistency was gained and the scale was valid.

For a research tool, such as a questionnaire, to be reliable, it has to produce similar results every time it is applied (Cohen et al., 2010). There is a range of available methods through which reliability can be assessed, including test-retest, split-half techniques, and Cronbach's Alpha

(Oppenheim , 1992). In the present case, the reliability of the questionnaire was measured with Cronbach's Alpha. Utilizing Cronbach's alpha is a vital source of reliability evidence. It measures how well each item of in a particular scale relates with the other items using a Likert scale. It is an indicator of internal consistency among items(Cortina, 1993).

It is also measured using the test-retest coefficient. I employed the pilot study twice with a difference of around three weeks between both of them to find the reliability of the questionnaire and its adequacy for the study's purpose. The results obtained are shown in the table below:

Part	Cronbach's Alpha	Test-Retest
1	0.829	0.887**
2	0.824	0.822**

** Correlation is significant at the 0.01 level

Table (5) Reliability coefficients

The results regarding the reliability given by the Cronbach's Alpha were 0.829% and 0.824%, respectively, while those given by the test-retest were 0.887% and 0.822%, respectively. These results indicated that correlation was significant at the 0.01 level; which means that students understood the questionnaire well and clearly. Therefore, the questionnaires were sufficiently reliable for distribution.

It must be noted that research reliability and validity are likely to be enhanced by the integration of different data collection methods, which in this study were the questionnaires, student self-evaluation forms, interviews, and observations.

5.5.6 Data Analysis

In this study, analysis is necessary in order to establish how PBL works in an IE classroom in a secondary school in Bahrain. According to Denscombe (2010), the objective of analysis is to deepen understanding of the thing being analysed. In analysing a subject, its different features can be identified and described, and an understanding of its functioning as a whole can be gleaned. As explained in the section on research design, the research is based on a mixed method

approach. The qualitative data involves two sets of observations and semi-structured interviews. The quantitative data is made up of two sets of questionnaires and student self-evaluation forms. The two types of data (qualitative and quantitative) were analysed separately before being combined and re-analysed.

In regards to analysis of the qualitative results, a "thematic analysis" was employed. According to Braun and Clarke (2006. p. 6), a thematic analysis can be described as "a method for identifying, analysing and reporting patterns within data." The main advantage of this kind of analysis is its adaptability (Braun & Clarke, 2006). With the support of this adaptability, thematic analysis provides valuable descriptions of results (Auerbach & Silverstein, 2003). In this study, I chose to conduct the analysis by hand to feel more connected to the analytical process. First of all, in order to conduct a thematic analysis of the data, I prepared the data; this step included transcribing and translating the interviews and organising the information into different categories based on whether it came from students, teachers or curriculum specialists. I transcribed the interviews into a written form. The interviews were conducted in the native language of the participants, Arabic, and were translated to English. Since I possessed an in-depth understanding of the research context, interview translation and transcription were carried out at the same time. As explained by Hennink et al. (2011), this procedure requires the translator to listen to the recorded interview, decide how to translate it and write the translation as a transcript. However, details may be overlooked by concomitantly translating and transcribing, while translation mistakes are also easily made (Hennink et al., 2011). To address this limitation, two PhD students who were native speakers of Arabic and who also understand English were asked to listen to the recorded interviews and go over the interview transcriptions to make sure that no information was missed and that the terminology and grammar in the translations were correct. Finally, each interview transcription was given a number as follows; from 1 to 19 for students, 20 to 21 for teachers and 22 to 24 for curriculum specialists. Then each of the 24 interview transcripts was given line numbers to keep the interviews in a relevant, practical, and accessible form for readers.

The transcription and translation of the interviews was demanding and time-consuming work. It is estimated that for every one hour of audio recording, four to five hours are required for transcription (Creswell, 2012; Hennink et al., 2011). In this study, I found that given that

translation was required on top of transcription, every forty-five minutes of audio recording took over five hours to translate and transcribe. This corresponds with Hennink et al.'s observation (2011), that when translation and transcription are completed at the same time it requires an additional time commitment. Additionally, the observational data were written out in Arabic (as it is my first language) during the first and the second set of class observations. The required quotes from the observations that needed to be analysed were translated into English.

Secondly, the data is analysed through the practice of coding and categorisation, after which a more detailed sense of the data can be gained and it can be represented in a meaningful way. This is done by dividing the analysis of qualitative data into a number of steps, as stated by Creswell (2012), Hennink et al. (2011) and King (2012):

1) Reflection: As the current study is an exploration, data reflection is needed to determine the emergence of particular themes which were raised in this study; this step involved a preliminary coding process that included all of the data collected, and any areas of possible importance were noted; this was a time-consuming activity but allowed the researcher to get to grips with the data collected.

2) Coding: in this step related sections of information were coded by gathering hierarchal associations between bundles of data.

3) Categorisation and detailed analysis: the coded data was further divided into categories and was looked at more closely; by looking at the associated themes of the data, an elemental comprehension of the data was gained.

By the end of the process of analysing the observational and interview data, I recognised that some of the themes and codes were related to the research question and had already occurred in the literature. Other themes, codes and sub-codes are emergent; these are connected with the Bahrain context where the culture, disciplines and education system are different. As a result, sixteen codes emerged and were allocated to the set of interviews and observations. These codes were grouped into five themes relating to the perceived learning outcomes of PBL in KB. The table below demonstrates the themes and codes:

Research Questions	Theme	Code	Sub-Code
Q1: How do conventional pedagogies in IE in a Bahrain girls' secondary school impact on students' learning experience?	1 - The impact of pedagogies on IE in KB.	1- The styles of teaching and learning 2 - The role of the student. 3 - The role of the teacher.	Code: The styles of teaching and learning: ➢ Rote learning. ➢ Critical thinking. ➢ Problem solving. ➢ Cooperative learning. ➢ Expressing views. ➢ Applying real life situations to motivate students' learning.
Q2: How does the implementation of PBL work within the context of Islamic Education in a Secondary girls' school?	2 -Learning process of the IE PBL module 3-The elements of IE PBL module implementation	4 -Problem presentation. 5 -Problem understanding. 6 -Problem analysis. 7 - Decision-making. 8 - The problem. 9 - The role of the teacher. 10 -The role of the student. 11 - Team work.	
Q3:Can PBL be integrated within the current Islamic Education system in the Kingdom of Bahrain?	4 - The benefits of PBL in IE in the Kingdom of Bahrain. 5 - Challenges of PBL in a Bahraini school in IE.	12 - Knowledge. 13 - Skills. 14 -Attitude. 15 -Pedagogical challenges. 16 - Practical challenges.	Practical challenges ➢ Students' unwillingness to accept change. ➢ Limited time to complete a task. ➢ Insufficient study data in the textbook. ➢ The PBL worksheets used for applying the PBL system in the classroom.

Table (6) The outline of themes and codes

The next stage was representation: in this step the data was displayed in a narrative form that was able to illustrate the results of the data analysis.

The final stage was interpretation: the findings of the analysis were interpreted and re-assessed in the context of the literature review and theoretical framework; as will be presented in the analyses and discussion chapters.

Quantitative data was collected side by side with the qualitative data in order to strengthen the validity of the research. The first three steps are the analytical process for questionnaires, while the fourth step is the analysis of the students' self-evaluation forms:

1 – The first step was to code the data so that the Statistical Package for Social Sciences (SPSS) software could be used. By coding responses, characteristics can be predicted and patterns between variables can be identified (Czaja & Blair, 2005). Section (1) in the pre-questionnaire asked: To what degree do the following practices occur in the course of Islamic Education teaching and learning? Section (1) in the post-questionnaire asked: To what degree do the following practices occur in the course of Islamic Education through the use of "problem-based learning" (PBL)? The pre-questionnaire was coded from a1 to a8 and post-questionnaire from b1 to b8. Section (2) in the pre-questionnaire asked: To what degree do you have the desire to learn the following practices in Islamic Education? Section (2) in the post-questionnaire asked: To what degree do the following practices occur in the course of Islamic Education through the use of "problem-based learning" (PBL)? The pre-questionnaire was coded from a9 to a16 and the post-questionnaire from b9 to b16. The scales in the questionnaire from 1a to 16a and 1b to 16b were scored from 5 (= Always) to 1(= Never).

2 – Next, most of the statistical techniques assume that the distribution of scores variable is normal and has the bell-shaped curve. I was aware that since the items measured on Likert scale, it is highly expected to obtain non-normal distribution. However, to check for normality, Kolmogorov-Smirnov test was used. In all comparisons the p-value resulting from the above mentioned test was less than 0.05. Using test of normality, the Kolmogorov-Smirnov test shows that the phrases are not normally distributed ($p\text{-value}<0.001$) (see appendix 19). As a result, non-parametric test is to be used. Hence, the assumption of normality was violated, and the alternative was to use Wilcoxon signed Ranks Test. The results of this test are presented in chapter 8.

3 – The findings of the data analysis for the questionnaires were then arranged in tabular form in order to display the findings clearly.

4 – The students' self-evaluation forms were analysed to obtain further numerical data. It is divided into three scales: excellent, good, and fair (acceptable level). The analysis displays the percentage of every student's performance during the PBL module.

5.5.7 Ethics

The applied research procedures complied with the "Revised Ethical Guidelines for Educational Research" of the British Educational Research Association (2011). The standards specified in the ethical guidelines were closely followed.

It is necessary to note that in KB permission to carry out research in educational institutions needs to be attained from the MoE, and students could not really ask to withdraw from the observational aspects of data collection – unless they asked to switch classes. The permission of observations was obtained from MoE as is discussed in section 4.3.1 "PBL module". The participants were clearly informed about the aims and objectives of the study; it was stated that collecting data was not for assessing the teachers and the students themselves.

In the interviews and questionnaires the participants were voluntarily involved and assured that their anonymity would be preserved and the data provided would be used exclusively for research purposes, these procedures were stated at the beginning of the interviews' transcription and in the cover letter of the questionnaires (see appendix 15 and 16). Pseudonyms were used in the study to refer not only to the students, teachers, and curriculum specialists that participated in the research, but also to the name of school where the research was conducted.

5.6 Conclusion

The general methodological aspects of the research design implemented in the present study have been discussed in this chapter. At first, the application of a pragmatic approach was addressed in terms of its underlying theories and assumptions. Furthermore, the exploratory nature of the study was justified through an explanation of the study goals to investigate the integration of PBL in Islamic education. Arguments were provided to support the use of the

methods of observations and interviews to carry out the educational intervention required for the research purposes. Quantitative data were also collected from questionnaires and student self-evaluation forms to complement and validate the qualitative data. A description of the pilot studies conducted to validate the methods was also provided, and the approach to sample selection was described. Last but not least, the quantitative and qualitative data analysis methods were discussed.

Chapter Six
The Impact of Conventional Pedagogies on Students' Learning Experiences in IE in KB Secondary School

6.1 Introduction

This chapter demonstrates the impact of conventional pedagogies on IE in KB. Its purpose is to present and discuss the results of the data collected by the first observations (non-PBL); interviews with students, teachers and curriculum specialists at the MoE, and the pre-questionnaire. The discussion of the results in this chapter is based on the findings raised at the data analysis stage in this study and the literature reviewed with taking the context of this study into account.

6.2 The Impact of Conventional Pedagogies on Islamic Education in the Kingdom of Bahrain

The purpose of this research is to identify the impact of conventional pedagogies on IE in the KB and to find out whether students are able to adopt the PBL approach and whether it meets the MoE aims for IE. In the context of this study, conventional pedagogies refer to teaching approaches focused on covering content through a teacher-centred approach, offering passive learning for students. The learning outcomes are based on memorizing instead of a comprehension of the information put forward. The analysis of this theme explains the learning and teaching in Islamic Education in KB before applying the PBL approach. Analysis of the data revealed several different teaching practices utilised by teachers and a number of skills possessed by Bahraini students before the introduction of the PBL module, which are grouped under the types of teaching and learning, and the roles of teachers and students. The outcomes of question 1 "How do conventional pedagogies in IE in a Bahraini girls' secondary school impact on students' learning experience?" in this research are derived from interviews with all categories of participants and the first set of observations (non-PBL) and pre-questionnaires. They reveal a number of thought-provoking and important elements regarding the skills of students in KB and current Bahraini teaching techniques for Islamic Education.

It was found that the techniques used to teach IE in KB do not encourage or help students to think for themselves. Teachers attempt to deliver knowledge to students but there are a number of practices which do not challenge the ability of students and do not help students to successfully cover the teaching and learning process outcomes set by the country's Ministry of Education.

6.2.1 The Styles of Teaching and Learning

The interviews and the first set of observations (non-PBL) and pre-questionnaires in this study revealed that there are different styles of teaching and learning in Bahraini schools which are grouped as follows: relying on rote learning, critical thinking, problem solving, expressing views, cooperative learning, and applying real life situations to motivate students' learning. These practices do not play a significant role in fulfilling the purpose laid out by the education policy of KB and IE. The students who participated in this research were asked in the first part of the pre-questionnaire to answer questions related to the practices which occurred in the course of Islamic Education teaching and learning. Statistics are presented in the form of tables.

6.2.1.1 Rote Learning

The qualitative and quantitative data indicate that rote learning is employed in secondary Islamic Education in KB.

To begin with, I state the practices occurring during the course of Islamic Education teaching and learning before applying PBL. This knowledge comes from pre-PBL observations and my background in the field of IE. These items are numbered in sequence from 1a to 8a in the following table:

Items	**The practices occurring in the course of Islamic Education teaching and learning**
1a	The teaching and learning process of Islamic Education involves memorizing the material for the exam only.

2a	The teaching methods in Islamic Education give you the opportunity to obtain an in-depth understanding of Qur'anic verses and Sunnah texts.
3a	The schoolbook activities help you to learn.
4a	Rote learning (memorizing the material) plays a significant role in the current teaching and learning process.
5a	The current methods of teaching help you solve your daily problems.
6a	The teacher accepts answers from all their students.
7a	The teacher asks their students to provide evidence to support their responses.
8a	The teacher asks their students to clarify or analyse their answers.

Table (7) The practices occurring in Islamic Education teaching and learning in pre-questionnaires from 1a to 8a

Then, table (8) displays the Mean and Order of the extent of the practices occurring in the course of Islamic Education teaching and learning before applying PBL. The statistics in this table represent students' responses in pre-questionnaires from 1a to 8a:

Items	**Frequency**							
	Always (5)	**Often (4)**	**Sometime (3)**	**Rarely (2)**	**Never (1)**	**Mean**	**Order**	**Std. Deviation**
1a	24	22	30	15	9	3.37	2*	1.25
2a	18	26	32	22	2	3.36	3*	1.08
3a	4	10	21	22	43	2.10	7	1.18
4a	50	30	12	6	2	4.20	1*	1.01
5a	7	13	29	30	21	2.55	5	1.17
6a	21	26	22	20	11	3.26	4	1.30
7a	5	28	35	26	6	3.00	5	0.99
8a	16	24	41	19	0	3.37	2*	0.97

Table (8) Students' responses in pre-questionnaires from 1a to 8a of the practices occurring in Islamic Education teaching and learning before applying PBL.

Table above illustrates the students' perspectives, from higher to lower. It indicates that item (4a) "Rote learning (memorizing the material) plays a significant role in the current teaching and learning process" comes first with a mean of 4.20, item (1a) "The teaching and learning process

of Islamic Education involves memorizing the material for the exam only." and item (8a) "The teacher asks their students to clarify or analyse their answers" come second with means of 3.37 and then item (2a): "The teaching methods in Islamic Education give you the opportunity to obtain an in depth understanding of Qur'anic verses and Sunnah texts" with mean of 3.36 comes third.

In addition, during the interviews with students and teachers and the first observations (non-PBL), it was noted that conventional pedagogies did not seek to improve the comprehension skills of students. Students provided correct answers without understanding them. Furthermore, it was seen that the teachers did not exploit the skills of students by asking them to give their own thoughts. Thus, the learner is simply a listener in such teaching methods.

Student Naur responds to the question about the advantages and disadvantages of the implementation of PBL as quoted below:

> "It is a good Programme, it teaches me the necessary skills which I need to solve problems in my daily life and studies, it is true that PBL makes me open my mind while the previous teaching methods made most of the students start to sleep because only the teacher speaks and students are simply listening." (Interview 8 line 38-68).

Student Nauf comments:

> "In the previous teaching methods we were just listeners. Sometimes we used to participate, but not active participation." (Interview 4 line 69-70)

And student Roah stated that previous teaching methods were based on memorizing, she said:

> "We used to take the information and memorize it, even though we did not understand the matter all the time." (Interview 17 line 44- 45)

In addition, during the first set of observations (non-PBL) dated 2/6/2013, the teacher asked the students to provide a definition of "plastic surgery" and its different types, stating that students should provide proof from the Quran and Sunnah to answer these questions. These activities involved remembering specific information and did not encourage free thinking. In relation to

this, the pre-questionnaire results showed that item (3a) “the schoolbook activities help you to learn” rarely occurred in the practice of teaching with a mean of 2.10 which means that such activities do not encourage students to learn. However, rote learning is a type of learning, but it is different to constructivist learning which invites students to create meaning out of the things that they learn. Thus, constructivist learning had been missing from the pre-PBL classrooms.

Moreover, previous teaching techniques involved students reading textbooks and then memorizing them to be ready for the exam. The process of memorization was the key element here. A curriculum specialist, Ahmed, expressed his concern that exams merely tested how well a student could regurgitate information:

> “I think that the defect lies in the exams, the exams might be easy, they might be cursory, they don’t develop the student’s personality, and they depend on mere memorizing and repetition because our students are used to the indoctrination approach.” (Interview 22 line 252- 254)

Student Manal commented about the purpose of the exam:

> “In the previous teaching methods, my concern was only to memorize the information for the exam only, to get high marks, then after the exam such information became of no importance. In the new module, we believe that such information will be of great use for us in the future.” (Interview 7 line 383- 386)

As the principles in Islamic Education claims – belief in Islamic law is based on understanding; the teacher did not encourage critical thinking and understanding, she did not enhance and make use of the students’ abilities in eliciting religious judgments. The teacher tended to provide proof from the sources of Islam without students’ understanding them. From the Islamic point of view, the learner is invited to reflect on the world around them. The data clearly revealed that students are used to receive the information from their teacher without any kind of searching or taking part in understanding the texts. In this context, the teachers illustrate the lessons for the learners without giving them the opportunity to understand and evaluate the information provided. Results from the pre-questionnaire show that the teaching methods in Islamic Education sometimes or rarely give students the opportunity to obtain an in depth understanding of Quranic

verses and Sunnah texts (mean score of 3.36). On the other hand, Islam offers assertions on increasing faith and a deep understanding of believing. Therefore, other teaching and learning based on experiment and investigation are required for increasing faith as mentioned in the Quran when Allah guided prophet Ebrahim (BPUH) by using an experimental way to achieve a complete belief.

Consequently, this kind of teaching and learning directs students to memorize the lessons and does not allow them to understand them deeply. This is due to two reasons: teachers do not teach the students in a way which allows them to understand the topic deeply. This conclusion is supported by the result of pre-questionnaire that the practice "The teacher asks their students to provide evidence to support their responses" sometimes or rarely occurred with a mean of 3.37. The second reason is that the examinations are not formulated in a way which provokes reflection or thinking by students. In this regard, the results of the pre-questionnaire showed that the practice "the teaching and learning process of Islamic Education involves memorizing the material for the exam only" happened between sometimes and rarely which gives the same mean as above.

The results in this study are similar to the official documents of the MoE (2011), which draw attention to the fact that teachers must bear in mind that in most developing countries, strategies and prevailing methods focus on memorization by rote, isolating the provider of knowledge from the learners' skills and putting the learner in the position of the receiver.

6.2.1.2 Critical thinking

Critical thinking is considered as a complex human process which deliberately occurs involving competent intellectual skills and abilities. Critical thinking, as advised by Cottrell (2005), involves arguments, drawing different points of views and conclusions as well as reflecting on different issues. The MoE drew up a clear set of objectives for secondary schools (MOE, 2008). One was to develop the students' critical thinking in terms of science and how to evaluate opinions and reach logical conclusions. Yet, there is no evidence that this objective is being pursued in schools. One student, Fatima, pointed out that:

> "The teacher sometimes used to tell us a story, and then gave us some questions to answer. However, such information was not supported by proof, and nothing was concluded from this story." (Interview 9 line 75-77)

Curriculum specialist Ahmed commented that:

> "The indoctrination approach is commonly applied in the state schools, where teachers don't give the students the opportunity to discuss, to participate and to express their opinions." (Interview 22 line 113- 115)

It can be seen that in teaching there is often a gap between what teachers intend to deliver and what students experience in the topic delivered. The quotes above demonstrate that students were not engaged in the learning process and they might not have been given the chance to think for themselves. During the first set of observations dated 3/6/2013, the students asked a number of questions about plastic surgery, for example, about the alternative non-surgical options available. The teacher was unable to respond to these questions and admitted to not knowing how these were viewed in Islam, and stated she would consult with particular experts. There are new and critical issues being raised in students' lives on a daily basis. Students need to be able to search in their sources in these matters without always deferring to others, and teachers need to engage students in a discussion to give them the skills and confidence to do this.

Another teacher in another session (27/5/2013) showed a film on "Political Globalization", in which the film talks about the attitude of development countries towards other countries, so as to show the disadvantages of "Political Globalization". However, there was no discussion of "Political Globalization" and the teacher did not elicit points of view from students about this topic. Students were not given the opportunity to discuss the problems associated with "Political Globalization" and suggest solutions. Actually, it would have been an excellent opportunity to challenge the students' perceptions and their intellectual abilities in this regard.

There was nothing indicating "Critical thinking" as well as deep thinking, and there were no chances for students to ask and answer questions regarding new issues around them; as the form of the discussion was based on simple and shallow questions, so the students' participation was weak. However, it also showed that students have the ability to question in order to understand

more about the issues related to their lives such as plastic surgery. It can be concluded that the practice of students in secondary school does not achieve the MoE aims as stated that the development of student ability in critical thinking and free expression of the learner, and allowing ways of creativity and innovation (MoE, 2013).

6.2.1.3 Problem solving

Bahraini students may not have the required skills to solve problems they might encounter in their daily lives. The students who participated in this research were questioned in the interviews about the differences between previous teaching techniques and the PBL module. Student Khadija pointed out that:

> "The most important thing which does not exist in the previous method is how to solve problems." (Interview 1 line 19-20)

Another student, Ahlam, stated that this was her first time practicing solving problems:

> "No, it is the first time I have learned and used problem solving skills. And I hope I will continue using them in both school and at home." (Interview 12 line 138-139)

Another student who participated, Fatima, added that:

> "The procedures of problem solving don't apply in the previous teaching methods. But in the previous teaching methods the problem itself was not the major activity in the lesson." (Interview 9 line 90-92)

What can be inferred from the quotes above is that students did not recognise if and when problem solving activities occurred. However, during the first observation (non-PBL) dated 10th June 2013 it was noted that the teacher divided the class into six different groups, giving each group a particular problem. In one lesson, the students were given six problems to work on and only ten minutes to find a solution (in their groups). It is clear that the students are unaware of how to engage in problem solving. The methodology that the teacher applied to solving the problems was not adequately explored. More time was needed to find a solution for the problems. Moreover, the students had not been given any instruction on how to approach the

task. For this reason, the students did not pay enough attention to problem solving tasks. Evidence shows that problem solving is not routine in learning, and teachers are not well equipped or confident in using such activities.

It can be concluded that the Bahraini students are not motivated to solve problems and do not use any particular procedure for problem solving. Accordingly, the objectives of "Desired Education" cannot be achieved. As the MoE (2011) stated, the importance of linking students' previous experience and its application in real life problems is critical. This requires students to reflect on what they have learnt and use their cognitive skills to approach a problem.

6.2.1.4 Cooperative Learning

The observational data revealed that the teachers utilised the cooperative learning method in class. As such, the students in class were divided into groups so that they were able to work together. Despite this being the goal, what actually occurred was that the students read the material and the teacher gave an explanation of the key points. Thus, the students did not participate in a meaningful way. In the interviews, students were asked about the obstacles they faced in the previous teaching method; student Khadija responded:

> "Mmmmm, there was no cooperation learning at all." (Interview 1 line 7)

It was then asked what she meant by "no cooperation learning at all", as the group work had been observed in her class. She replied that the lack of cooperation was a problem that occurred within the groups themselves:

> "Yes, there was no cooperation. Sometimes, I had an idea and my friend had an idea, but I knew nothing about her idea, she might be right and I was wrong, the problem is how could I know that she was right? We had to cooperate, exchange and share our ideas." (Interview 1 line 9-12)

The curriculum specialist Ahmed confirmed what student Khadija believed:

> "First of all, I can say that it is an excellent module, as your aim is to introduce the PBL approach into the Islamic Education subject in order to enable students to learn the skills of learning through solving problems. Our Islamic Education

> modules have a lack of interactive aspects, we depend greatly on the theoretical side, and our teachers depend on the recitative approach." (Interview 22 line 17-21)

In the pre-observations (non-PBL), in more than one lesson the class was organized into groups in which students could work together to facilitate cooperative learning; however, the students' role was just reading the text and the teacher explained the most important points, but the students' participation was negative and insufficient.

The process of cooperative learning was not properly applied in teaching IE; as can be concluded from the evidence above, there is no form of learning that encourages the learners to work together cooperatively within groups so that they can support each other rather than compete with each other for grades. Thus, working in groups did not lead students to benefit from each other by exchanging information and sharing ideas in order to assess their understanding. Furthermore, the teacher's role was simply giving information to the students rather than facilitating the process of learning. Accordingly, the teaching practice of IE does not meet the MoE goal of "Desired Education" which claims to strengthen the trend towards collaborative action and changes the role of the teacher (MoE, 2011).

6.2.1.5 Expressing Views

The MoE's (2011) intention is to encourage activity through speaking and discussion among the learners and their teacher which gives the students the freedom to express their opinion. However, the study revealed that this skill is in limited use by students and there is no opportunity to be involved in real discussion.

During the pre-observation (non-PBL) dated 20/5/1013, a video on political and economic globalization was shown in which the attitude of leading nations towards other nations was discussed. The concept of political globalization was not discussed by the students themselves and they were not given a chance to express their opinions. Students were not offered a platform to converse about the problems connected to political globalization and to discuss potential responses to such problems. Thus their critical thinking and analytical skills were not given the opportunity to be developed. Similarly, economic globalization was also not discussed. One

student expressed the opinion that economic globalization has advantages, but the teacher did not give her the chance to elaborate on this viewpoint.

However, teachers of other classes did encourage the expression of different viewpoints. In one such class, students began by reading out a particular problem and attempting to identify an appropriate response to it. Following this, the teacher asked the students how many of them agreed with a particular viewpoint expressed during the discussion. Around half of the students agreed with the given viewpoint. Next, the teacher asked the students why they agreed or disagreed. One student responded that she thought the viewpoint was correct but did not state the reason. This indicated that the student did not have the ability to express her thoughts clearly. The teacher then attempted to explain to her students that one problem can have a number of different answers, as it can be seen from different perspectives. To illustrate her point, the teacher drew a "v" and asked the students what it was. The students responded that, in Arabic, it could be the symbol for the number seven or, if read upside down, it could symbolize the number eight. The teacher concluded that this can occur in discussions, so other viewpoints must be respected and an attempt must be made to understand different perspectives.

The example above shows that the teacher did not tell the students that opinions should be supported by proof and a case must be made for all arguments given. As emphasized by McCreer et al. (2011), effective analytical skills do not require an individual to be argumentative by nature. It is possible for the students to apply logic and use evidence to back up a particular viewpoint. However, the teacher's efforts attempted to teach students that they needed to accept different viewpoints, but she did not explain that sound opinions need to be based on evidence, so the method was instructional rather than cultivating effective critical thinking.

From the above, the qualitative data shows that there was some practice of freedom of expressing opinions and an argument in the learning process. In the same vein, the quantitative results from the pre-questionnaire showed that "the teacher accepts answers from their students" occurred sometimes with a mean of 3.26. Moreover, it demonstrated that the practice "the teacher asks their students to provide evidence to support their responses" happened sometimes with a mean of 3. This could be as a result of some students not having had the opportunity to express their opinion and to practice debate properly.

6.2.1.6 Applying Real Life Situations to Motivate Students' Learning

In a number of sessions in pre-observation (non-PBL), it was determined that there was interaction between the students and the real life situations, where the students asked questions inspired by the world around them.

In the session of 30/5/2013, it was seen that students participated effectively because it is easier for them to make connections to their daily lives, for example, the pervasiveness of English language products in some applications such as WhatsApp. Thus, bringing a subject that reflects the students' experiences in the real world into the classroom is a valuable teaching device. Students were highly motivated to participate; however, there was a lack of reasoned arguments. For instance, one student claimed that using communication tools in more than a single language was a negative, but she did not explain why. This was based on the student's personal experience.

In another observation session (non-PBL) on 6/5/2013 the teacher started by writing the lesson objectives on the board, then she read a verse from the Quran about clothes and ornaments. One of the students mentioned one of the clothes and ornaments, and stated an appropriate verse. Students raised many points regarding the violation of the clothes disciplines prevailing in society. Some questions were raised regarding the wearing of the ornamented Abayya (a form of dress Bahraini women wear) and the fact that men are forbidden from wearing gold. However, no answers were provided to such questions by teacher. This example from the Bahraini classroom reflects a core tenet of constructivist theory. It is argued that understanding is derived from our communication with our surroundings (Savery and Duffy, 1995). In addition, the MoE (2011) declared the importance of the link between what students learned from previous experience and its application to problems in life.

The evidence above reveals that integrating real life situations into the lessons encourages students to learn and stimulates their learning. Thus, the students activate their prior knowledge and link it with the lesson. This provides opportunities for expansion of knowledge and answering questions from the surrounding environment. However, in the Bahraini classrooms, employing real life situations does not play a vital role. This is evident from the pre-

questionnaire results, stating that “the current methods of teaching help them to solve daily problems” sometimes and rarely happened with a mean of 2.55.

6.2.1.7 The Role of the Teacher

The official documents of the MoE claim the importance of keeping students at the centre of learning and using teachers as a guide and facilitator of learning. The document “Teacher's Guide to Teaching and Learning Strategies” describes the role of the teacher in “Desired Education” as one of prompting and guiding learning, where the teacher should be familiar with a number of important skills such as the ability to adjust and manage discussions and the design of educational activities which provoke thought differentiation for students (MoE, 2011). The data from the observations and interviews identified the role of the teacher in Bahraini schools as follows:

At the end of the first observation (non-PBL) lesson dated 10th June 2013, (which was mentioned in the rote learning section6.2.1.1, and in which the teacher gave the students multiple problems and asked them to solve them in one lesson), the teacher announced that the same lesson would be delivered in a subsequent session. Following the lesson, I asked the teacher why she had decided to re-deliver the lesson in the next session. She admitted that she felt she had not carried out her role effectively in delivering the lesson.

This view clashes with the objectives of the MoE, which advocate for students to be placed at the centre of the learning process and the role of the teacher to be a facilitator. The instructions given are to implement educational techniques that stop teachers from isolating themselves as knowledge providers, and giving students the passive role of receiver (Ministry of Education, 2006). In relation to this issue, student Sarah pointed out that she depends on her teacher:

> “In the previous teaching methods the student was totally dependent on the teacher to obtain the information required, but now the situation is different, we open the book and look up the information we need. We depend on ourselves in this regard.” (Interview 2 line 356-358)

Another student, Sahad, said:

> "Concerning the ordinary method, the teacher used to give me everything, she used to explain everything and make me understand what's in my books, but using this Problem Based Learning method we have to learn and understand everything by ourselves." (Interview 18 line 66-69)

Teacher Jamila strongly agreed with students, stating that:

> "In the previous teaching and learning process, I bore the whole load, I played the main role." (Interview 20 line 230-231)

During the first set of non- PBL observations, it was observed that students generated "evidence" from the Quran and Sunnah and the teacher then offered explanations. This process relied entirely on the teacher's knowledge; as a result, the students were not involved in the comprehension element.

Curriculum specialists explained that the MoE advises teachers to employ teaching methods that encourage students to be at the centre of the learning process in order to be in line with the MoE's objectives and the strategies proposed by the Ministry. For instance Nwal, a curriculum specialist, stated:

> "Of course the learner must be at the core of the teaching and learning process. Now we are moving away from the old methods, the teacher is no longer the core of the teaching-learning process." (Interview 24 line 53-55)

The interviews were conducted with students, teachers, and curriculum specialists, and the observations illustrated that the teaching methods applied in KB were wholly dependent on the teacher. Relevant material was provided to the students and then evidence or examples were explained by the teacher. The teacher's primary area of attention was the exam's requirements which students were to sit. This is due to a teacher's competency being measured against her students gaining good results.

6.2.1.8 The Role of the Student

The interview responses and observations (non-PBL) revealed that students did not actively participate or discuss topics in the classrooms. The students' activities were restricted to reading

a set of materials while the focus remained on the teacher explaining the topics. Additionally, although the students in the classroom were divided into groups, no group work was actually undertaken.

The dominant position occupied by the teacher in the previous teaching techniques relegates the students to a particularly restricted role in the educational process. Teacher Jamila elucidated the process of transmitting knowledge in Bahraini secondary schools:

> "The major objective of PBL is to teach the student how to construct their learning and find the answers required by herself without depending on her teacher, and that is one of the most important elements of the "teaching and learning process" which we really lack in our educational system in Bahrain." (Interview 20 line 21- 24)

A considerable number of students described the role that a student plays in lessons in the previous teaching methods as being a "listener". For instance, student Samar mentioned that:

> "Concerning the disadvantages of PBL, I can say that the new module was applied suddenly; I mean we used to depend on the teacher for everything. I thought it was a bad thing when I saw the teacher asking me to do many tasks while she was like the guide, but later I found it was a good thing for us." (Interview 15 line 18-21)

Another student, Roah, pointed out that:

> "Yes, in the previous teaching methods, the teacher used to give me the topics without discussion. I used to take the information from the teacher without any kind of searching or taking part." (Interview 17 line 38-40)

Student Fatima clarifies her role:

> "The previous teaching method was boring, and I was not motivated in the classes. As a student, I had no role, I was just a listener, and the topics were not interesting either." (Interview 9 line 57-59)

These responses illustrate that, as listeners, students were only active during part of a lesson and thus missed out on important elements of the educational process. In order to develop the teaching and learning methods to achieve MoE goals, a student needs to be at the centre of the learning process. Suha, a curriculum specialist, stated that:

> "Our target is to make a student the core of the process of learning. To be honest, the previous teaching methods are no longer fruitful, we need interactive students." (Interview 23 line 68 -70)

From the set of pre-observations (non PBL) dated 3rd June 2013, it was observed that the teacher divided the class into groups. A student from Group 1 gave a definition of "e-commerce" as it is written in the textbook. This term was then explained in detail by the teacher. This process was repeated with the remaining groups with each group depending on the information contained in the textbook, with the exception of one group who provided an excellent, logical explanation. This was remarkable amongst the observational data. The teacher made use of the students' intelligence and raised leading questions: What is the importance of reliability or honesty in the buying and selling process? Why are truthfulness and reliability important in the selling and buying process? One student, who had trading experience, gave a strong response to these questions.

Although the teacher did attempt to put the students at the core of the educational process and thereby change their own role, I noticed that she was unfamiliar with this technique and did not give the students enough time to continue their explanation. Consequently, the majority of students in the class were concentrating on the teacher's role of delivering the information to them, as the role of students was confined to reading only. It is of vital importance that students play an important role in the teaching and learning process, not only reading out written material. Indeed, such a role is negative as it does not motivate the students' thinking ability. Moreover, the class was divided into groups but there was no actual group work carried out.

The evidence above contradicts the MoE policy (2008) that states students must do more than simply read. They must play a key role in the educational process. Passive reading does nothing to prompt students to think for themselves. Moreover, analytical thinking as claimed by Islamic

education policy is required where students have an effective role in the learning process (Badri, 1995).

6.3 Discussion of the results

The results of this study indicate that there are a variety of teaching practices and student skills which emerged from the above data including rote learning, critical thinking, problem solving in IE, cooperative learning, expressing views, real life situations, and the role of teacher and student in different degrees of success. It is clear that these practices and skills need to be developed further in order to meet the MoE educational policy. Savery and Duffy (1995) believe that understanding is deeply personal, and individual understanding cannot be passed on. An individual is able to determine the extent to which his/her understanding aligns with that of other people.

The overriding observation from this research relates to the teaching methodology and learning process implemented in KB secondary schools with regards to the teaching of IE. This relies heavily on rote learning, or memorization, by students of information required for exams as opposed to students developing any great depth of understanding of the material in question. The research also shows that opportunities for students to share, discuss and exchange various viewpoints in groups are lacking. There is also a lack of opportunities provided by teachers to enable students to freely discuss their own opinions on topics. As a result, such a teaching methodology does not create a learning environment in which students are free to think critically regarding topics, but relies on students simply accepting facts without fully considering all the issues.

The findings of this research contrast sharply with the stated aims of the MoE (2011) as teachers are perceived as simply delivering material in the form of factual information and ideas and are not being given much opportunity for wider meaning-making and exploring how classroom-based learning applies to the wider world. This in turn, leads to students adopting a passive role as opposed to an active one in their own learning process, which results in the non-development of effective cognitive skills including problem solving, decision making, questioning, planning, evaluating and judging, organizing data and creativity.

From the discussion above, it is observed that there is no connection between the official education philosophy as put forward by the MoE and its application in the classrooms. The MoE strongly claims that thinking skills and students should be placed at the centre of the learning process; however, according to the findings of my research, this is not the case.

This failure to wholly adopt and implement the stated MoE methodology has caused uncertainty as to how educational material should be treated in IE. The results can be seen: a lack of development of critical skills along with lower levels of engagement by students as a result of reliance on teaching methods which concentrate on the teacher in a central role and students as listeners or receivers of information, not the student-centred, interactive learning process desired by the MoE.

There is a strong relationship between this study and research by Ahmed (1993) in KB which claims that students provide Islamic provisions from the source of Islam without understanding them. In addition, other studies conducted by Alsaif (1996) and Altriki (2008) in the Arabian Gulf countries reported that the teaching methods of Islamic Education were based on the lecture method.

In addition, Altriki (2008) claims that problem-solving based teaching is one of the most important strategies that aids in the development of thinking skills; he reached this conclusion by measuring the pre- and post-performance of the students in applying his new teaching method. The current study and Altriki agree on developing the students' thinking skills, but Altriki's study focused on students learning the material in the textbook, and then using problem solving to solve the homework problems. Here, students are using problem solving skills in a "subject-based" learning environment compared with a problem-based learning environment. In this study, students solve problems based on using textbooks, previous knowledge, TV programmes and more. Moreover, in some cases they achieve different solutions from those presented in the textbook (as a resource). In addition, the role of real life problems and students' life experiences help stimulate their learning.

The findings of this particular study are in agreement with those of Al-Hudhayfi (2002) , which showed that compulsory education in the Arabian Gulf is not productive, as more conventional

methods are employed in teaching and learning. Therefore, education in general in the Arabian Gulf does not allow for students' personal improvement.

It can be seen from this study that the principles of IE such as developing a deep understanding of Islamic law through reflection, consideration of various viewpoints, and critical appraisal of written references to Islam and Muslims are not being met. It is clear that learners are simply being presented with material without any active participation, analysis or deeper comprehension of the material relating to Islam being required.

In order to counteract this, an on-going evaluation of the curriculum relating to IE, its design process, its development criteria, and teaching methodology are required. Currently, the subject of IE forms part of the general syllabus of education throughout the Arabian Gulf and particularly in Bahraini schools; however, it is crucial that such a subject is not simply presented as a body of knowledge, but rather as a collection of experiences which relate to the real life experiences of students in order to achieve the desired goals.

This current research intends to contribute to the development of IE in terms of the teaching and learning process, especially within the Bahraini secondary school system, through supporting the effective adoption of PBL methodology for the teaching of IE in line with MoE objectives, and to ensure that IE contributes to learners' overall personal development as well as supporting a deeper understanding of learners' faith.

In this respect, the eight items in the second section of the pre-questionnaire aimed to identify the students' desired practices in IE and to find out how PBL assists students to achieve their desired practices, as these items come from the features of PBL and MoE aims. The table below represents the responses to the question: To what extent are you interested in learning through the following practices in Islamic Education? I listed the items in sequence from 9a to 16a in the following table:

Items	The learning practices that students desire in Islamic Education
9a	I apply and use the information obtained in other real life situations.
10a	I learn through analysing and understanding processes.
11a	I participate in activities that help in the occurrence of learning.
12a	I exchange views and ideas about our lessons.
13a	I conclude and obtain information for myself.
14a	I connect the learning material with real situations
15a	I understand the reasons behind Islamic verdicts.
16a	I learn through groups that help me learn.

Table (9) The learning practices that students desire in Islamic Education in the pre-questionnaire from 9a to 16a

Table (10) displays the Mean and Order of the learning practices that students' desire in Islamic Education before applying PBL. The data in this table denotes students' responses in pre questionnaires from 9a to 16a:

Items	Frequency							
	Always (5)	Often (4)	Sometime (3)	Rarely (2)	Never (1)	Mean	Order	Std. Deviation
9a	66	19	5	8	2	4.39	2*	1.03
10a	58	27	12	3	0	4.40	1*	0.82
11a	42	29	17	4	8	3.93	7	1.22
12a	55	27	12	5	1	4.30	4*	0.94
13a	34	35	28	1	2	3.98	6	0.92
14a	57	22	14	5	2	4.27	5*	1.01
15a	63	17	11	6	3	4.31	3*	1.08
16a	28	31	25	7	9	3.62	8	1.22

Table (10) The learning practices that students desired in Islamic Education in the pre-questionnaires from 9a to 16a

The table demonstrates the learning practices which students are interested in utilizing in IE. It shows that the most popular practice is item10a “I learn through the analysing and understanding process of the lessons” with a mean of 4.40. Followed by item 9a “I apply and use the information obtained in other real life situations” with a mean of 4.39. The third item is 15a “I know the real reasons behind the Islamic verdict” and the fourth item 12a “I exchange views and ideas about lessons” with means of 4.31 and 4.30 respectively. Then, the fifth practice 14a with a mean of 4.27 was “I connect the learning material with real situations”. This indicates that Bahraini students are interested in deep learning. Atherton (2013) points out that deep learning promotes understanding and application in real life. In contrast, other practices which students are less interested in compared with others in the same section of the pre-questionnaire are: 13a “I conclude and obtain information by myself” with a mean of 3.98, followed by 11a “I participate in activities that help in preserving learning” with a mean of 3.93 and lastly, 16a “learn through groups that help me learn” with a mean of 3.62.

The results from the table above provide a considerable cluster of specific capabilities of Bahraini students such as working in group and solving real life problems .that are considered to be vital for the achievement of educational policy objectives as well as modern-day standards for learners (QAA, 2014). Each student has their own way of learning and it is not necessary for teachers to spoon-feed information to them. Students are able to learn, and they learn effectively from one another.

Based on this, the implementation of PBL modules should meet the following aims:

- Refocus on learning rather than teaching, allowing learners to become active participants and develop independence and self-direction in order to foster problem solving skills as opposed to passively listening and receiving information.

- Greater focus on developing learning skills and outlooks which emphasize learners’ abilities to acquire their own knowledge as opposed to simply learning information by rote, through a reduction in the quantity of information required to be memorized by learners.

- The development of student-centred, small-group learning environments which create opportunities for learners to cooperate with one another, collaborate in problem solving using analytical and critical thinking, and in which teachers act as facilitators for learning.

Based on the evidence, PBL offers opportunities for learners to develop the necessary skills as outlined by the MoE; hence PBL was chosen in favour of alternative teaching methodologies for this particular study. This study concerned itself with the appraisal of PBL as applied to the learning environment of IE as taught in Bahraini secondary schools, offering a creative and practical teaching approach in real life learning situations as opposed to simply a theoretical analysis of it as a teaching methodology.

To conclude, rather than simply measuring its effectiveness by whether or not it met the required objectives, it is necessary to consider how exactly PBL methodology would work and in what scenarios it would work best. In order to achieve this, the second research question in this study deals with the following: How does the implementation of PBL work within the context of Islamic Education in a Secondary girl's school?

Chapter Seven
The Implementation of the IE PBL Module within the Context of Islamic Education in a Secondary Girls' School

7.1 Introduction

To investigate the implementation of the IE PBL module and the involvement of students in the learning process, it is necessary to determine how the IE PBL module was implemented. According to Baden and Major (2004, p.143), evaluation is defined as: "Something done to determine the effectiveness of programmes and projects designed to produce change that is carried out by careful appraisal and study". In this study, emphasis is placed on the learning process and students' experiences, along with issues that have been encountered during the implementation of PBL from the perspective of facilitators and students.

A number of issues were identified through the correlation of qualitative data derived from interviews with students, teachers and curriculum specialists, observational data on the IE PBL module, and the post-questionnaire. Two particular themes emerged from the analysis, namely the learning process of the PBL and the way in which the IE PBL module was implemented.

7.2 Learning Process of the IE PBL Module

The role of the student in the PBL module is to solve problems using the steps that comprise the PBL process. The PBL process functions by determining what data is required to comprehend and resolve a given issue (Boud and Felletti, 1997).The PBL module in this study consists of four steps: problem presentation, problem understanding, problem analysis and decision making. The management of each step by Bahraini students is outlined below:

7.2.1 Management of Stage One: Problem Presentation

The teacher's role in this stage is to present the problem and to direct students in conducting a short discussion about the specific topic (due to time constraints). For example, what do you know about the dowry? Have you heard about problems related to the dowry?

The aim of this stage is to establish a relationship and point of contact between the student and the problem (Delise, 1997). This study revealed the importance of the first stage with one student Fatima explaining how she managed this step within her own group:

> "First, I read the problem aloud. One of the girls read the problem; I understood it and then imagined that the problem was my own. In other words, I assumed the role of the people involved in this problem so that it would feel like I was in a real life situation" (Interview 9 line 302- 304)

Student Auhad added more details about managing this particular "problem":

> "When I picked up on the meaning of the difficult vocabulary, it helped me to identify the real causes of the problem as the problem is based mainly on vocabulary; if I don't know the meaning of the vocabulary used, I will find it difficult to understand the problem." (Interview 3 line 243-246)

Student Ahlam gave an example:

> "Once, I and my group encountered a problem when speaking about a man who had divorced his wife through WhatsApp. I had misunderstood the problem but the girl who had understood the problem clarified the meaning for us using in her own words." (Interview12 line 170-172)

Students read the problem and explain it in their own words because it is difficult to understand the issues when they are presented in formal Arabic. By re-expressing the problem in their vernacular, they not only found it easier to understand, they were also more likely to accept the problem as genuine. Consequently, the learners were given the right to use their language to understand the problem and exchange knowledge with one another.

7.2.2 Management of Stage Two: Problem Understanding

The second stage refers to the development of a clear and comprehensive idea about the problem from different angles. For example, what factors affect the problem or what are the positive and the negative aspects of the problem? This step allows the student to resolve the problem easily.

This study has demonstrated the importance of the second stage as it assists the learner in finding an ideal solution by taking all perspectives on the issue into account.

Student Auhad asserts that:

> "I must identify the positive and negative aspects of the problem in order to identify the guilty party, so as to start proposing appropriate solutions; in other words, I determine how to deal with the problem effectively." (Interview 3 line 506-508)

Student Marah gave an example of how the positive and negative aspects of the problem can be identified using the second stage:

> "In terms of the problem experienced by the girl whose father married another woman and wanted his daughter to spend money on her mother and her sister, we identified the positive points in this case by highlighting the fact that the girl had a good job with a good salary; nonetheless, we identified the negatives of the problem in that the girl's father denied his responsibility towards them by spending money on his kids with the second wife but not those he had fathered with his first wife." (Interview 6 line 163-168)

Samar points out the importance of identifying the positives and the negatives of the problem:

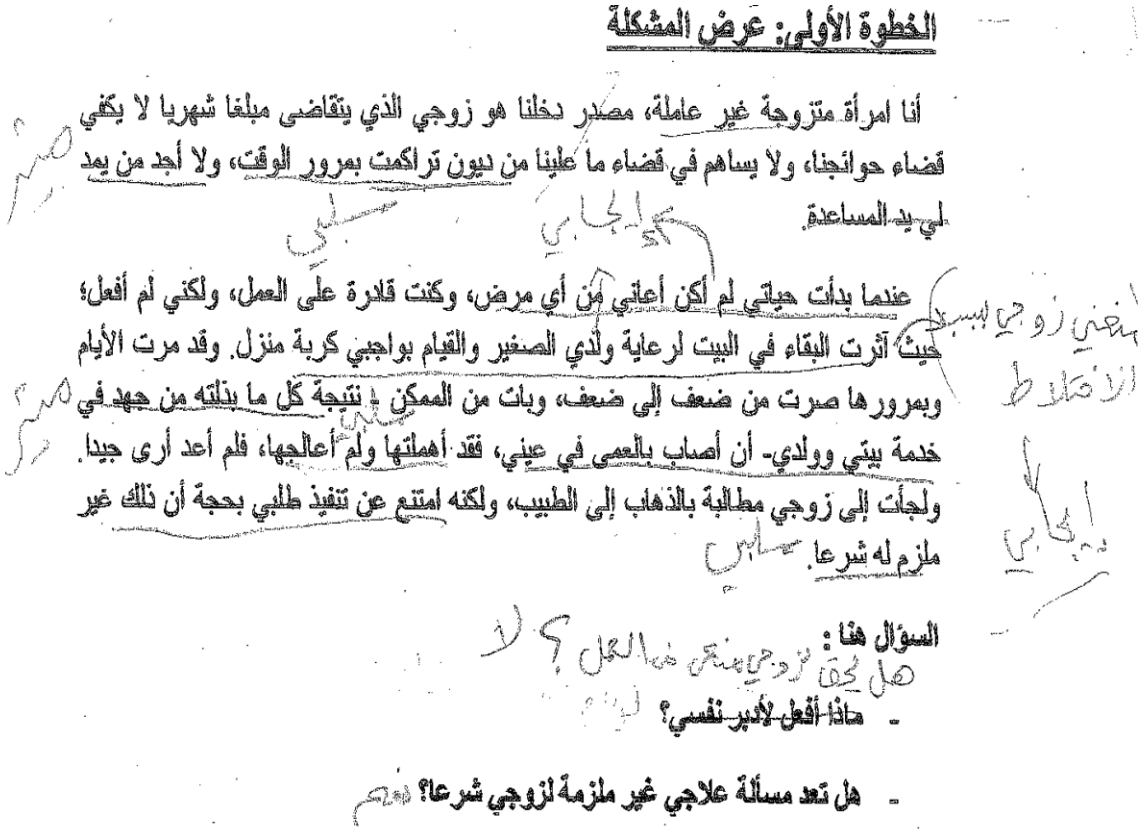
> "This process helps us determine the reasons why the guilty person committed this act; it helps us solve the problem from its root and make an appropriate judgment" (Interview 15 line 88- 89)

During the observation of PBL on November 3rd 2013, I noticed that one student asked another, "Do you know what the factors are?" Her colleague answered, "Yes, greed and gluttony, led the father to commit this oppression", the student responded "How did you know?" the last question indicates that this student is looking for opinions based on evidence.

Furthermore, the students were asking each other "Did you find a difficulty in the problem classification (positive, negative and motivating)? They seemed interested in the topic as it taught them how to face real life situations with confidence. Student Sarah pointed out that:

> "No, no it was so interesting and identifying the positive and negative factors motivated me; I discovered that these were important elements of the problem and we as a group focused on it". (Interview 2 line 163- 165)

Although I had designed the guidelines of the PBL process to contain a timetable (see appendix 6) that illustrated the pros, cons and other factors affecting the individuals involved in the problem, the students paid no attention to it. They preferred to choose their own method in underlining the sentences and identifying the cons, pros and other factors: see Figure (6) below:



الخطوة الأولى: عرض المشكلة

أنا امرأة متزوجة غير عاملة، مصدر دخلنا هو زوجي الذي يتقاضى مبلغا شهريا لا يكفي قضاء حوائجنا، ولا يساهم في قضاء ما علينا من ديون تراكمت بمرور الوقت، ولا أجد من يمد لي يد المساعدة.

عندما بدأت حياتي لم أكن أعاني من أي مرض، وكنت قادرة على العمل، ولكني لم أفعل؛ حيث آثرت البقاء في البيت لرعاية ولدي الصغير والقيام بواجبي كربة منزل. وقد مرت الأيام وبمرورها صرت من ضعف إلى ضعف، وبات من الممكن ؛ نتيجة كل ما بذلته من جهد في خدمة بيتي وولدي- أن أصاب بالعمى في عيني، فقد أهملتها ولم أعالجها، فلم أعد أرى جيدا. ولجأت إلى زوجي مطالبة بالذهاب إلى الطبيب، ولكنه امتنع عن تنفيذ طلبي بحجة أن ذلك غير ملزم له شرعا.

السؤال هنا:

- ماذا أفعل لأدبر نفسي؟
- هل تعد مسألة علاجي غير ملزمة لزوجي شرعا؟

Figure (6) Example of Students' Work (Own Learning)

This adheres to the constructivism principal which states: "Give the learner ownership of the process used to develop a solution" (Savery & Duffy, 1995, p. 5). This clearly demonstrates that the students create their own methods in critically solving problems and these unique methods dominate the learning process.

Additionally, the students did not accept the terminology “offender” and “victim” and replaced these terms with “plaintiff” and “defendant”. They justified this modification by claiming that the original terminology was not appropriate in this context. This terminology was chosen by me after I had read court documents and I did not expect the student to replace it with their own words. This indicates that this activity developed the students’ creative skills and critical thinking abilities. This supports constructivist theory, as (Richardson, 2003. p.1626) asserts the value of the “Provision of opportunities for students to determine challenges, change or add to exciting beliefs and understanding through engagement in tasks that are structured for this purpose”.

The evidence above indicates the importance of identifying the positive and negative aspects of the problem. The final decision would be made according to the group discussion in which students are guided in finding the most suitable solution. Additionally, knowing the factors of the problem that affect both parties would allow the student to identify all those who are affected or aggrieved by the problem. In addition, the students’ control over the learning process is shown in their tendency to devise their own learning methods outside of those contained in the PBL guidelines. This was demonstrated by their tendency to underline the problems, determine the positives and negatives of a situation and modify any terminology they considered unsuitable.

7.2.3 Management of Stage Three: Problem Analysis

The importance of this stage is to determine alternative solutions from the main sources of Islam – the Quran and Sunnah texts. This allows the students to study the resources in more depth in order to find suitable solutions. Student Munera discussed how she and her group managed the third stage:

> “My group and I discussed so many ideas so that we might find an ideal solution to the problem. For example, if a couple has a problem and we know that each of them has supporters, we analyse the problem to determine the cause and the best way to solve it.” (Interview 13 line 165-168)

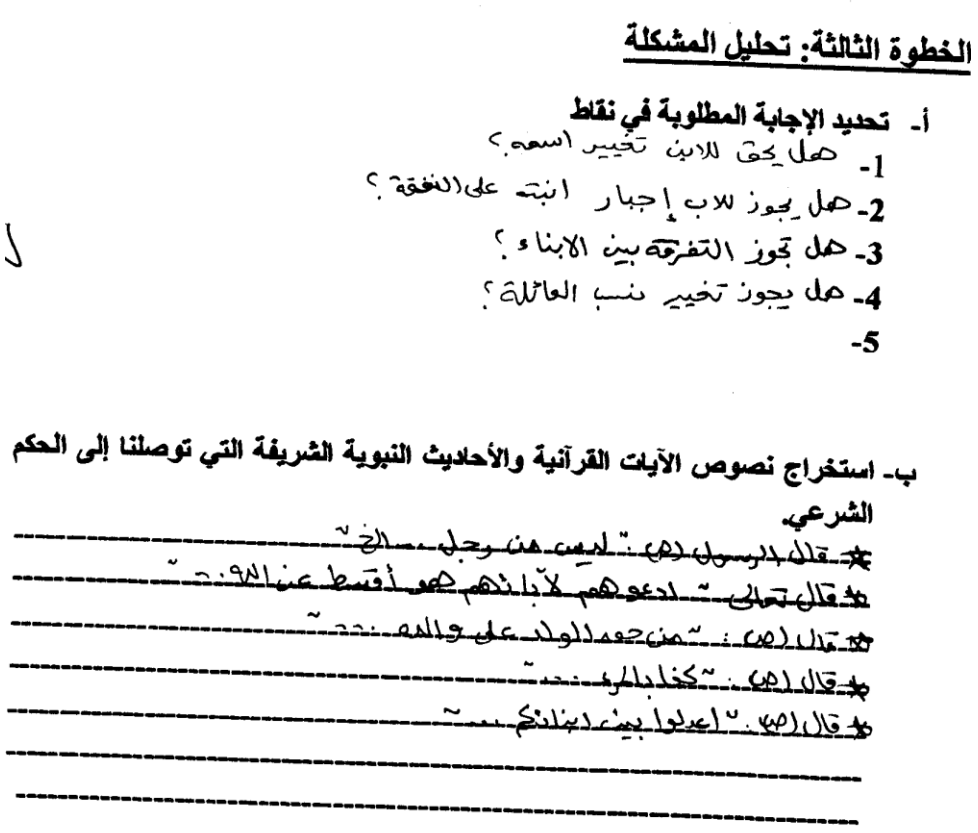
The students were asked “what is the importance of this step to you?” in response, Student Amena commented that:

> "This step is very important to me. The discussion is based on verses from the Quran and Sunnah. My group and I consider the verses of Quran and Sunnah texts in great depth and produce ideas; we debate and an exchange idea, an approach which has been beneficial for all members of the group was taken." (Interview 19 line 110-113)

Teacher Jamila raised other points as well:

> "In this activity, the students acquire analytical skills; as the girls cannot solve a problem before analysing it, they develop the ability to analyse the situations in the right direction and this benefits them in their daily lives; thus, the students analyse the matter first and then issue their decision" (Interview 20 line 218-221)

In this stage, the students were able to identify the learning issues based on their understanding of the problem. The learning issues became a foundation for further investigation from the Quran and Sunnah: see Figure (7)



الخطوة الثالثة: تحليل المشكلة

أ- تحديد الإجابة المطلوبة في نقاط

1- هل يحق للابن تغيير اسمه؟
2- هل يجوز للاب إجبار ابنته على النفقة؟
3- هل تجوز التفرقة بين الابناء؟
4- هل يجوز تغيير نسب العائلة؟
5-

ب- استخراج نصوص الآيات القرآنية والأحاديث النبوية الشريفة التي توصلنا إلى الحكم الشرعي.

★ قال رسول الله: "ليس من رجل ..."
★ قال تعالى: "ادعوهم لآبائهم هو أقسط عند الله ..."
★ قال الله: "من حق الولد على والده ..."
★ قال الله: "كذا بالرب ..."
★ قال الله: "اعدلوا بين ابنائكم ..."

Figure (7) An Example of Students' Work in Analysing the Problem

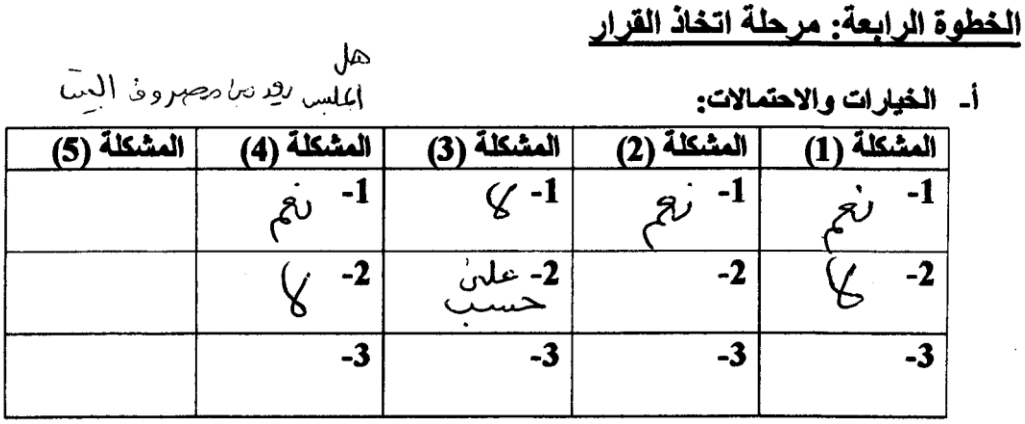
The above discussion reveals that students were able to analyse the problem and identify the appropriate resources from the Quran and Sunnah. This increased the depth of their understanding of the task at hand. Their discussions allowed them to exchange ideas and to list the most suitable solutions for the problem. This step developed students' analytical abilities, which are imperative to daily life.

7.2.4 Management of Stage Four: Decision-making

The importance of this stage is to teach students how to weigh up alternative solutions and possibilities so that they make the most suitable decisions based on evidence. Student Marah asserted that:

> "I have to share my ideas and points of view with others. This helps me to come to a decision. We may have different opinions but we usually come to an agreement; however, this is not the case for every problem. Through critical thinking, we devise better and more effective solutions." (Interview 6 line 190-193)

In the stage of making a decision, the first phase is "the options and possibilities". In this phase students assess and compare alternative solutions of the problem, then in the second phase "proposed solution and supporting evidence" students make decisions based on strong evidence as they analyse the problems according to the Quran and Sunnah: see Figure (8):

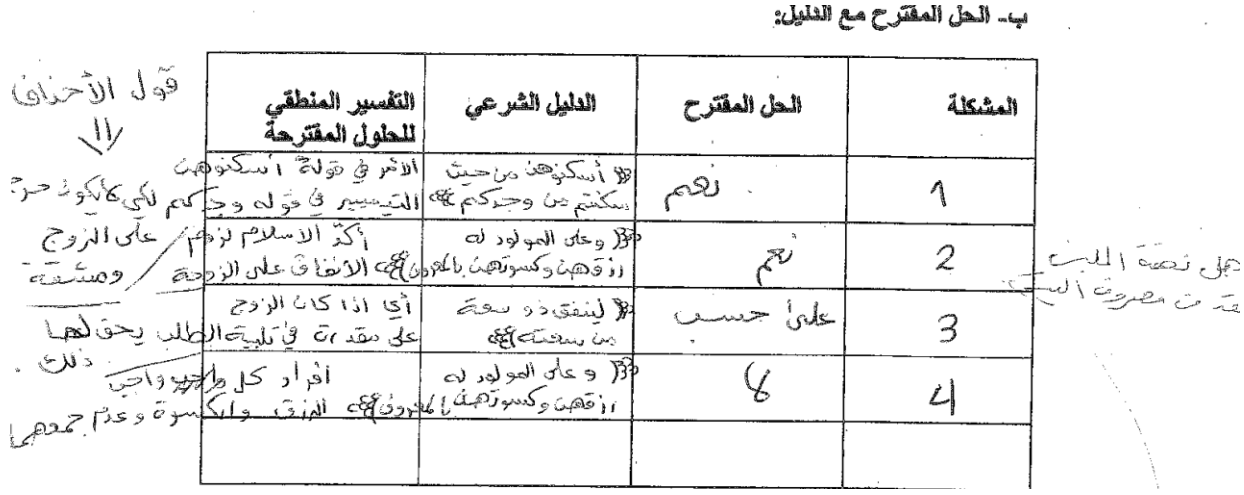


الخطوة الرابعة: مرحلة اتخاذ القرار

أ- الخيارات والاحتمالات:

هل اجلس بجد بما هو معروف البيت

المشكلة (1)	المشكلة (2)	المشكلة (3)	المشكلة (4)	المشكلة (5)
-1 نعم	-1 نعم	-1 لا	-1 نعم	
-2 لا	-2	-2 على حسب	-2 لا	
-3	-3	-3	-3	



ب- الحل المقترح مع الدليل:

المشكلة	الحل المقترح	الدليل الشرعي	التفسير المنطقي للحلول المقترحة
1	نعم	﴿ أسكنوهن من حيث سكنتم من وجدكم ﴾	الأمر في قوله أسكنوهن التيسير في قوله وجدكم لكي لا يكون حرج
2	نعم	﴿ وعلى المولود له رزقهن وكسوتهن بالمعروف ﴾	أكد الإسلام لزوم الإنفاق على الزوجة
3	على حسب	﴿ لينفق ذو سعة من سعته ﴾	أي إذا كان الزوج على مقدرة في تلبية الطلب يحق لها ذلك
4	نعم	﴿ وعلى المولود له رزقهن وكسوتهن بالمعروف ﴾	أقر أن كل واجب المنفق والكسوة وعدم حرمها

قول الأحناف ١١/

على الزوج ومشقة

جعل نعمة الله مقدمة على مصروف البيت

Figure (8) An Example of Students' Work in the Stage of Making a Decision

However, this evidence first needs to be evaluated and these skills take time to be mastered. I noticed that not all evidence was evaluated and there was evidence from the Sunnah that was not attested as a reference as the teacher did not draw the students' attention to it. Over seven weeks, the students started to learn how to perform this skill and their ability to "weigh the alternatives" was more pronounced during an open discussion between different groups.

One of the PBL lessons observed on November 23rd 2013 concerned a wife's obligatory service to her husband and the information contained in the students' textbook indicated that it is obligatory for a wife to serve her husband in looking after the house and cooking meals. During this discussion, the students deduced from Quranic verse that if a married woman willingly serves her husband, Allah will reward her as this act is perceived as charitable. This, however, was not cited in the evidence related to service contained in the textbook. I discussed the outcome of the observation with the curriculum specialist in regard to the different explanations offered by the text book and the Quran. In response, Ahmed admitted that:

> "Yes. That is right. The principle in Islam in this regard states that the wife is not obliged to serve her husband and this is one of the advantages of the PBL as it gives the learner an opportunity to review the sources of Islam." (Interview 22 line 140- 142)

Thus, students reached a conclusion based on a deep understanding of the sources of Islam and their application of previous knowledge. In conclusion, there is significant evidence of the

applicability of PBL in the retrieval of previous knowledge during a discussion and this presents students with an opportunity to further develop their knowledge (Schmidt et al., 2011).

7.3 Discussion of the results

The findings in relation to the PBL learning process were based on data generated through interviews and observation. The outcomes indicate that Bahraini students manage each of the PBL processes in four stages. PBL appears to improve the learning process and encourages students to consider each of the four stages sequentially in gathering evidence before determining the most ideal solution to the problem at hand. In this regard, Delise (1997) claims that the process of PBL is vital as it allows students to consider each stage carefully before moving to the next one, this led students to gather suitable information to solve the problem.

In terms of 'problem presentation', evidence indicates that students read through a problem and then simplify it using their vernacular to become more familiar with the issue and exchange knowledge within the group. In the same line, the present study applies constructivist principles in that students are given ownership to determine their preferred approach to problem-solving (Savery & Duffy, 1995). The findings generated by the present study substantiate those generated by Bessant et al. (2013), who state that an increased level of ownership in learning encourages students to engage in group activities. This stage allows students to use their vernacular during the 'problem presentation' stage as it increases the extent to which they perceive the problem as realistic.

In terms of the 'problem understanding' stage, the results demonstrate the value in exploring the pros and cons of an issue before determining the most suitable solution. In addition, the findings indicate that students work beyond the PBL guidelines in creating ownership of their learning. The findings generated by the present study support those generated by Delise (1997) who claims that the PBL process should be used as a rough guide in allowing the students to develop their own unique cognitive approaches to the task. The findings of stage two substantiate the constructivist principles which state that an environment that is conducive to learning must be created in which learners challenge each other's beliefs and evaluate them in light of alternative theories, ideas or perspectives (Savery & Duffy, 1995). Furthermore, Bessant et al. (2013) highlight the value of self-guided learning as students play a more active role in identifying the

data they require. Similarly, Schmidt and Moust (2008) discovered that a preliminary analysis of the problem contextualises previous knowledge of the problem, and this information is used to cultivate an initial theory on the cause of the problem and the factors which have contributed to it. The findings generated in relation to stage one and stage two suggest that students will develop a diverse range of solutions if they are given control of the learning process. This result indicates that ownership of learning was applied in the target Bahraini school through the PBL module.

Regarding the 'problem analysis' stage, the findings indicate that students effectively consulted verses from the given resource material in order to enhance their understanding of the issue. The subsequent discussion facilitated students in exchanging knowledge and determining the most ideal solution using an evidence-based methodology. The 'problem analysis' stage is fundamental as it assists students in considering real life problems from an analytical perspective. This finding is relevant to the objectives of the MoE's IE curriculum in advocating that students are able to analyse in-depth the Quran and Sunnah to explore social, political and economic phenomena (Ministry of Education, 2011). These finding parallels those generated by Smith et al. (1995) who claim that the purpose of group study is to investigate a problem analytically in finding definitions, exploring concepts and acquiring an in-depth knowledge of the issue.

The findings also indicate that the third stage facilitates the analysis of Islamic sources in relation to the problem and encourages students to exchange knowledge and determine the most ideal solution to the issue at hand. These skills will also benefit students when they encounter similar issues in a real life context. Schmidt et al. (2011) asserts that the problem scenario is presented on the basis of the group's collective knowledge and their cognitive analysis of the evidence they have acquired. In this environment, the students can formulate their own cognitive constructs in becoming familiar with the findings and retaining this knowledge in their long-term memories.

The findings in stage four 'decision making' indicate that students evaluate and consider other possible solutions that may facilitate them in making more effective decisions. In addition, Bahraini students used Islamic sources effectively in assessing the content of the textbook and rationalising their conclusions. Boud (1985) asserts that the PBL module enables students to enhance their critical thinking in assessing the validity of data. In addition, there is a direct link

between the findings generated by the present study and the constructivist belief that learning outcomes are improved when students play an active role in gathering information and deciding what knowledge they wish to acquire (Savery & Duffy, 1995). Furthermore, the data obtained shows that the IE PBL module plays a role in challenging student ability, and this meet the QAA (2014) objectives which target the development of teaching and learning strategies to challenge students' capabilities and learning potential. This is supported by Islamic principles which believe that it is imperative for students to acquire an adequate standard of intellect in order to fully comprehend Islam (Ibn Qayyim al-Jawziyyah, 1985).

In summary, this study has assessed the implementation of the IE PBL module in a Bahraini school and the findings indicate the extent to which the process affected the learning outcomes of students. PBL in IE emphasises the students' control of the learning process in attempting to identify the cause of the problems presented objectively. Furthermore, this study has demonstrated the skills acquired by students in consulting the Quran and Sunnah as primary resources in considering all possible solutions to the problem before arriving at a final decision.

7.4 The Elements of the IE PBL Module Implementation

PBL implementation is assessed in terms of the following elements: the problem presented, the role of the teacher, the role of the student, and team work. The following table demonstrates the practices occurring in the course of Islamic Education teaching and learning in PBL. It comes from the literature review of PBL that corresponds with the MoE's curriculum for IE. The items mentioned in the table are arranged in sequence from 1b to 8b:

Items	**Practices occurring in the course of Islamic Education teaching and learning in PBL**
1b	The teaching and learning process of Islamic Education aims at memorizing material for the exam only.
2b	The teaching methods in Islamic Education give you the opportunity to obtain an in-depth understanding of Qur'anic verses and Sunnah texts.
3b	The schoolbook activities help students to learn.
4b	Rote learning (memorizing the material) plays a significant role in the current teaching

	and learning process.
5b	The current methods of teaching help you solve your daily problems.
6b	The teacher accepts answers from all their students.
7b	The teacher asks their students to provide evidence to support their responses.
8b	The teacher asks their students to clarify or analyse their answers.

Table (11) The practices occurring in the course of Islamic Education teaching and learning in PBL in the post-questionnaire from 1b to 8b

Table (12) illustrates the results obtained from the analysis of eight Items from 1b to 8b in students' responses to the post- PBL questionnaire which related to IE practices while PBL is in use.

	Frequency							
Items	**Always (5)**	**Often (4)**	**Sometimes (3)**	**Rarely (2)**	**Never (1)**	**Mean**	**Order**	**Std. Deviation**
1b	6	32	18	21	23	2.77	8	1.29
2b	44	27	24	3	2	4.08	4*	0.99
3b	12	22	23	28	15	2.88	7	1.26
4b	19	25	27	9	20	3.14	6	1.38
5b	39	23	22	12	4	3.81	5	1.20
6b	77	19	2	2	0	4.71	2*	0.61
7b	86	11	3	0	0	4.83	1*	0.45
8b	74	22	4	0	0	4.70	3*	0.54

Table (12) Students' responses to IE practices of teaching and learning while PBL is in use

As illustrated in table (12), it is clear that the three highest-scoring practices relate to the role of the teacher. The highest mean is given to item 7b which states that "The teacher asks their students to provide evidence to support their responses" with a mean of 4.83. This is followed by item 6b which states that "The teacher accepts answers from all their students." and 8b "The teacher asks their students to clarify or analyse their answers" with means of 4.71 and 4.70 respectively. These three practices in PBL indicate teachers always gave students the opportunity

to deal with argument by expressing their opinions based on evidence in order to ensure that the students' understanding and awareness is not simply based on what is written in their textbooks. In addition, the item 2b "the teaching methods of the Islamic Education give you the opportunity to obtain a deep understanding of the Qur'anic Verses and the Sunna texts" with a mean of 4.08 showed that the PBL module provided students with an opportunity to obtain a deeper understanding of Quranic verses and Sunnah texts. The PBL module helps students to resolve problems they encounter on a day-to-day basis, this evident in item 5b "the current methods of teaching help you solve your daily problems" with a mean of 4.08. However, with successive mean in intensity of positive learning as discussed above, the statistics demonstrate that the item 4b "Rote learning (memorizing the material) plays a significant role in the current teaching and learning process" with a mean of 3.14. This is followed by item 3b "the schoolbook activities help students to learn" and item 1b "the teaching and learning process of Islamic Education aims at memorizing material for the exam only" with means of 2.88 and 2.77 respectively .

Alongside the quantitative data, the interviews and observation of the PBL module identify the role of the problem that students are asked to solve in PBL along with the role of the teacher, the role of the student and the importance of team work.

7.4.1 The Problem

The current study posits that problems which reflect real-life situations must be at a level which corresponds to the students' educational abilities and must be conducive to learning. I did my best to access real life problems from a Bahraini court with each problem formulated to be realistic and representative of how problems are experienced in a real-life context. I also focused on challenging the students' imagination in devising unique forms of assessment.

The interviewees confirmed that the problems were drawn from real life situations; for instance student Shadya pointed out that:

> “Sure, there are real life problems that I read about in magazines, learn about on TV or am told about by relatives and I also discuss the problems presented in the class with these people; now I have the ability to find solutions for these problems using PBL module”. (Interview 11 line 63-65)

Student Sarah also addressed the benefits of real life problems:

> “Real life problems developed my confidence to face problems and deal with them in a reasonable and logical way as soon as I encounter them or a member of society.” (Interview 2 line 33-34)

During my observation of PBL on November 4th 2013, I noticed that the level of student interaction was strong and even became heated. Students also mentioned evidence from their previous experiences. For example, one student gave an example where her cousin, a male, conceded dowry. Another student heard of a similar incident on TV. In other cases, students linked the problem to their previous experiences by reading a popular literature called "Towards a happy life". The teacher encouraged a high level of interaction as she facilitated and directed them in their discussion. The students enjoyed discussing the problem as it was linked to their own lives and this is a key requirement for achieving the PBL learning objectives.

The reality of the problem reflects the importance of this feature in encouraging students to learn by capturing their attention and enabling them to retain the knowledge they acquire long-term. Moreover, the students’ involvement in discussing the problems in a classroom context gives them the opportunity to be more aware of such issues in real life situations. For example, they discussed the problems with their families and friends, which indicate that students have the potential to make changes in society in the form of social participation. However, student Ahlam claimed that some of these problems were not real:

> “Not all of these problems are real. One of these problems in particular I did not believe. When I studied it, I just couldn't believe that it could be true” (Interview 12 line 54-55)

Some students did not believe that these problems could exist in their society as they had not been exposed to these problems before. For example, many believed that the problem of a lady

who complained that her father took the dowry which was legitimately hers was complete fiction.

Another aspect that must be considered along with real life problems is that the level of the problem needs to be equivalent to the students' educational level and challenging enough to facilitate learning and development; during my observation of PBL on December 5th 2013, students commented that Ahmed's problem is easy whereas Mohammad's problem is complex. Student Roah claimed that:

> "The most important advantage is that I could readily solve some problems and although they were difficult, I have tried my best to get the job done" (Interview 17 line 49-51)

This statement demonstrates how the problems challenged the cognitive skills of the students and encouraged them to deal with the task at hand. I also ensured that the problems considered met the key curriculum goals of IE.

The observational and interview-based findings indicate that the PBL module must possess a high degree of familiarity and authenticity to enhance the extent to which students recognise and engage with a problem. In effect, the PBL module affects how students deal with problems on a day-to-day basis; in fact, quantitative data indicates that the practice "the current methods of teaching help you solve your daily problems" happened between always and often with a mean of 3.81. This illustrates that students perceive resolve real life problems is to be the core.

These findings substantiate those of previous studies, namely those of Saven-Baden and Major (2004), which suggest that problems must be presented in an intriguing and challenging manner. Similarly, Hung (2006) states that the exchange of knowledge will be more effective if the students discuss problems that they may have encountered in a real-life context.

7.4.2 The Role of the Teacher

The interviews with teachers and observations of classes shed light on the role of the teacher when implementing PBL in this Bahraini school. The role of the teacher in PBL implementation can be outlined as follows: to facilitate learning by teaching students how to find appropriate

responses through explanations. The teacher also provides learners with the necessary learning materials, demonstrates how to distinguish between opinions and facts, encourages students to express their views, and encourages students to adopt the PBL module implementation.

In PBL, the teacher's role as a facilitator plays a major part in monitoring the students' progress in order to find suitable solutions for specific problems (Delise, 1997; Baden et al., 2004). Previous studies on PBL reveal that the essential role of the teacher is to facilitate the learning and teaching process. This enables students to take responsibility for their learning process, a theory which is evident in ACS (2014) and Delise (1997), with the facilitator playing the role of leader in organising a discussion on a target topic.

The first role of the teacher in a PBL module is to facilitate students in finding appropriate responses through explanation. Learning based on the principles of PBL teaches students how to reach and obtain the required knowledge in Islamic Education by themselves, and not to expect the teacher and the textbook to provide them with the solutions. Respondents were asked to indicate whether the teacher provided them with the solution, one interviewee Khadija said:

> "She did not give us the answer, she only explained what we said; I mean she directed my attention to the right way of thinking. She acts as a guide and directs us on the right track. Sometimes I change my mind when I hear the knowledgeable opinions of my peers and the teacher helps us to identify the best idea in the end." (Interview 1 line 14-17)

Student Qamar commented that:

> "The teacher can prevent us from developing false ideas or ill-advised opinions. If a student has a wrong idea, the teacher can easily convey a message to her that she is not correct; she may ask her "Have you found proof to support this statement?" (Interview 10 line 231-234)

The observation of PBL on November 3rd 2013 confirmed that the teacher asks students about the knowledge they have acquired. For instance, if a student asks "Is my answer right or not?' the teacher replies "I want you to explain the answer", which indicates that she does not wish to

interfere. These statements typically suggest that the teacher guides students in acquiring knowledge by themselves without intervention.

The students exchange ideas and opinions between themselves as they have similar backgrounds and levels of experience. This helps to close the gap between the teacher's thinking and the students' experience. There is an unambiguous relationship between the outcome of this study and constructivist beliefs in that the generation of new knowledge can encourage students to become more involved in the learning process by assigning meaning to their own experiences (Boghossian, 2006).

Another role of the teacher in Bahraini schools using the PBL module is to provide learners with the necessary learning materials. ACS (2014) and Delise (1997) claim that the role of a teacher is to facilitate the learning process instead of being just a source of information or knowledge. This role was clarified by students when I asked them "Does the teacher interfere?" to which student Sarah responded:

> "I refer to the teacher when I need support in clarifying required meanings. Most of the vocabulary was easy, although sometimes I encountered some words that my group and I did not understand; in this case, we asked the teacher" (Interview 2 line 202-204)

Student Auhad offered a specific example:

> "She (the teacher) might draw our attention to certain verses in the Quran which are not contained in our textbooks or may offer hints that put us on the right track in order to reach the most ideal solution." (Interview 3 line 325-327)

In this study, it is clear that a teacher is used as a source of information and a facilitator to the learning process. The observation of PBL on November 20th 2013 confirmed that when the students asked their teacher for a definition of a specific word, for example, a definition of 'recalcitrant', the teacher responded immediately to the question raised by the students with the answer 'a wife who is disobedient to her husband'. This is due to the fact that resources are not accessible at all times. These findings support those of earlier studies as Harden et al. (1999) and Bessant et al. (2013), which discovered that the collection of relevant background information on

the problem was necessary as was a teacher's restraint in offering definitive answers to the students' questions.

The role of the teacher in a PBL module is to distinguish between opinions and facts and encourage students to express their views coherently; students need to learn to make distinctions between opinions and facts. In the teaching process, the teacher respected the girls' opinions and when asked "does your teacher interfere?" student Manal said:

> "No, she only gave us the meaning of difficult words. At the end of the lesson, when we reached the solution, she used to tell us that we had done well." (Interview 7 line 262-263)

Moreover, the teacher insists that the students respect each other's opinions and teaches them how to convince the other party. I asked Manal whether she had to accept an answer that was clearly wrong. In response, she stated:

> "Here, I must listen to my peer answers even if it is clearly wrong; that being said, I express my opinion politely without hurting my friend in order to correct her answer but here we open a discussion in order to conclude the right opinion, ours or hers, but finally we take the decision." (Interview 7 line 232-235)

The observation of PBL on May 15th 2013 demonstrated how the teacher encourages students to present and express their own ideas and views. Moreover, the teacher teaches students how to distinguish between opinion and fact and how to deal with both of them. In dealing with this task, at the beginning of the lesson, the teacher asked the students to discuss a specific problem. Then, following the discussion, the teacher investigated whether the opinions of students had been changed. At the end of the lesson, the teacher informed the students not to use the phrase 'I feel' when discussing a problem as it is important to establish facts that are supported by evidence.

This approach highlights the fact that resources are not accessible at all times and the statement reflects the emphasis that the teacher places on distinguishing between facts and opinions. This can be achieved by asking students to explain their opinions at the beginning of the lesson based

on their previous experiences and asking them to discuss the problems in light of new evidence they have found in books.

The final role of the teacher in the PBL module is to encourage students to adopt a PBL module implementation. One of the key challenges of PBL is that it is difficult for teachers who employ a teacher-focused learning approach to transform their role and accept a student-focused learning process instead (ACS, 2014; White, 1996). However, the findings here demonstrate how the teacher prefers students to be at the core of the learning process. It could be argued that this easy transition resulted from the training and clear instruction that PBL provided, such as the teacher guide and the induction before applying the PBL module. In this regard, teacher May was asked if she encountered any challenges or difficulties in changing her role, she stated that:

> "On the contrary, this approach develops my role further, I like to adopt different roles and I like my students to find and evaluate the information in order to create an independent study". (Interview 21 line 172-174)

Similarly, teacher Jamila answered with regard to her new role in the PBL module that:

> "Actually, I supported the idea of this module as I felt that it will be of a great use for our students, and it will develop our teaching methods" (Interview 20 line 29-31).

As a result, the teachers encouraged students to participate in the group and their attitudes demonstrated that their roles could be modified to suit the students and the learning process. This challenges the assertions made by ACS (2014) and White (1996), who state that due to familiarity with traditional models of education, students and teachers may be reluctant to adopt changes. Student Shamma revealed that her teacher encouraged her and her classmates to stay motivated:

> "It was very difficult in the beginning but when we became tired and bored, the teacher always encouraged us by stating that our continued study and development was a gift from Allah. That made me feel more positive about the learning process and I became motivated once more." (Interview 16 line 38-41)

Shamma's statement demonstrates how her teachers encouraged her to continue with the PBL approach as Allah asks us to do our best to complete the task at hand in a verse from the Quran "Do [as you will], for Allah will see your deeds, and [so will] His Messenger and the believers. And you will be returned to the knower of the unseen and the witnessed, and He will inform you of what you used to do" (Quran 9: 105).

There is a high level of competition among the groups and this encourages students to stay involved in the learning process. Teacher Jamila illustrated how she motivated her students:

> "I used to tell them that they would obtain high marks in doing class work as the marks would be given according to the student's level of participation in each activity. I also used a green card system to motivate students and I ignored any student's prior misconducts. Moreover, I used different examples drawn from the Quran in order to encourage my students". (Interview 20 line 350-354)

At the end, the changes in the teachers' roles and attitudes were an outcome of their involvement in PBL. Moreover, the MoE instructions (2008) played a vital role in boosting teachers in changing their roles and placing students at the centre of the learning process.

7.4.3 The Role of the Student

This study has demonstrated that the role of the PBL student in this Bahraini school centres on the student-focused learning process. The student's role has evolved from a passive to a more active role and this transformation is proportional to the needs of Bahraini students. This is one of the goals of the MoE in KB. The curriculum specialist Suha confirmed that a student-centred educational process is a key objective of the MoE:

> "The whole department in the Ministry of Education is working on improving its curricula in a way that matches modern trends in teaching and learning in order to give the learner the most benefits through study plans and modern methods of teaching." (Interview 23 line 65- 67)

Student Qamar clarified her role:

> "The student may face some difficulties as she depends on herself for the whole task; it is a different experience for her as she used to depend entirely on her teacher whereas now she must depend on herself". (Interview 10 line 39-41)

The changes made to the student's role revolved around the fact that the student is now responsible for finding information and trying to find the answers to a problem independently. Students must be independent in finding the required information instead of simply playing the role of listener and observer. This transformation of the student's role is one of the primary PBL challenges as mentioned above.

On the other hand, the students and curriculum specialists revealed that it is essential to transform a student's role, and student Munera asserts:

> "Well, if the teacher represents the core of the teaching and learning process, I will work hard for the exam to achieve a high mark and I may then forget all I have learnt. However, if I am required to challenge my own cognitive abilities, I will apply the knowledge I acquire in real life situations". (Interview 13 line 50-53)

The curriculum specialist Nwal as a member of the MoE emphasises that students have to be at the centre of learning, she comments that:

> "The student has to be at the core of the teaching and learning process as her level of comprehension has evolved in comparison to students in the past." (Interview 24 line 53-54)

This statement reveals the outcome of a 'student-focused learning' approach as students are encouraged to extract ideas and make an effort to reach solutions by themselves. According to Atherton (2013), this facilitates the application of knowledge in real world scenarios and the long-term retention of information. In addition, it boosts the student's creativity and encourages them to become more active as they find more information to help them deal with any problems that they may encounter in the future. Furthermore, this shift in the role of the student meets the needs of current Bahraini students.

The rapid development of the world has developed students' abilities to think by themselves. Therefore, a contemporary education system requires a flexible approach in teaching students the skills they will require to become active members of modern society. PBL is one such method which challenges a student's capabilities and satisfies their needs.

Learning based on the principles of PBL teaches students how to obtain knowledge by themselves by understanding and analysing the problem and not expecting the teacher and textbook to provide them with solutions. Furthermore, PBL plays a significant role in achieving the skills sought by the MoE, curriculum specialist Ahmed states that:

> "Through this PBL module, the student will behave independently in acquiring the necessary skills and abilities to find the solution". (Interview 22 line 37-38)

Student Sarah claimed that:

> "Actually, in the beginning, I found self-reliance difficult in resolving the task independently; however, afterwards I found myself using the textbook as a guide only as I depended more on my own abilities to find a solution. Previously, we couldn't understand the textbook without the assistance of a teacher, but now things have changed a lot and I can understand the textbook when I read it alone". (Interview 2 line 48-52)

Similarly, student Ahlam asserts the value of this method of learning:

> "Due to my absence from lessons during an exam period, I had to stay at home to study. I needed to train myself to be independent to overcome any difficulties I might face during this time. For example, I used the internet to study by searching the name of the lesson. When I found the problem that needed to be solved, I searched for proof and the opinions of other scholars on the subject matter". (Interview 12 line 114-118)

During my observation of PBL on November 6th 2013, I noticed how students interacted with one another. Some questions were raised by students, for example, one student asked "which verse do we need for the answer?" while another student stated "We do not want the evidence to

represent the answer, this evidence should be used as a guide in finding the correct answer". This demonstrates how students make an effort to find information that has not been provided to them by the teacher; it is essential to acknowledge that this skill advances students' understanding of the topic without any type of support from the teacher. Moreover, students can perform this work even if they do not attend class for any reason. Thus, this feature of learning has positive future effects as people might not need to refer to religious leaders or the courts to find a solution to every problem. For instance, there are many problems that can be solved within the family.

Savery and Duffy (1995) believe that the constructivist viewpoint gives the students the opportunity to reflect on the content learned and the learning process itself. Thus, the knowledge of students can be enhanced by assisting them in retaining the information long-term and retrieving it when required. This is evident in the assertions made by student Manal:

> "Actually, under the previous teaching methods, the teacher used to give us more information than was contained in the textbook; however, in this PBL module, I looked up the information and found evidence by myself. This allowed me to discover new knowledge independently and I made my final decision based on these conclusions; this knowledge was retained in my memory and was never forgotten while the knowledge I acquired under previous teaching methods was easily forgotten as I has not made such a concerted effort in collecting the relevant information. As they say "Easy come, easy go"." (Interview 7 line 370 - 376)

This method of learning helps the student to retain knowledge for a longer period of time as they must make an effort to derive their answers independently following a long debate and discussion with others.

These findings substantiate those of Bessant et al. (2013) as students must determine the most crucial aspects of a particular problem by conducting independent study. This facilitates students in becoming more involved in the learning process by learning how to collect the necessary data.

In conclusion, as mentioned in the literature review, Saven-Baden and Major (2004) reported that the role of the student had evolved as students have developed from passive listeners and observers into active learners who enthusiastically engage with the learning material, participate

in discussions, and for whom textbooks and learning resources are not the only resources used in the learning. In effect, students now place more emphasis on the exchange of knowledge between peers and regard the experiences and opinions of others as an alternative source of information.

7.4.4 Team Work

The performance of the team in PBL differs from other methods; for instance, cooperative learning where the members of the team play particular roles in developing a variety of different skills. Baden and Major (2004) illustrate how team learning is not about simply adopting a specific set of learning tools or strategies. Instead, it demands that students realise that learning is influenced by context, time and space. Furthermore, it is also shaped by the level of the individual's contribution to the learning environment.

There are certain roles that must be adopted by group-work in order to facilitate effective team work. However, in this study, the students in this task did not play a fixed role during the period in which the module was applied. Students were asked "did you have a particular role to play in the task?" and student Shunonh asserted that:

> "Well, I worked on different tasks. One student read the problem, another illustrated the idea and another offered examples based on real life situations. Then, my group and I related the problem with the external environment in order to find an appropriate solution. Another student linked the task to her own experience and applied her skills. We exchanged these roles from time to time which allowed me to gain a variety of different skills. We really learnt from one another and shared these skills within the group, so it was a very positive learning experience". (Interview 5 line 289-295)

The study results show that playing different roles teaches the students different skills and allows them to gain experience in different roles. Consequently, rotating the tasks between members of the group provided the students with a number of skills including group reading skills, skimming and scanning skills, the ability to provide explanations, and the ability to retrieve previous

knowledge. I also asked the students about solving the problem individually to which student Marah responded:

> "No, working in groups is much better, as they say 'Two heads are better than one'. In groups, we can generate more ideas and exchange different opinions and I might have a different opinion or an idea from the others. Moreover, we can collect more evidence and more knowledge based on previous experiences when we work in groups. This is beneficial for me and my classmates as it allows us to find more effective solutions at a much faster pace." (Interview 6 line 196-201)

Therefore, cooperation in a group facilitates students in generating new ideas and improving knowledge. As a result, this boosts a student's ability to tackle the problem and express their ideas openly and cohesively.

Accordingly, discussion in groups gives students the opportunity to share their opinions so that the group can discuss the problem in detail and exchange ideas or opinions as everyone in the group participates in the discussion. A number of students were asked about how discussions are managed with student Fatima revealing that:

> "In this case, we listened to the different opinions and then conducted a discussion in order to convince each other to change our opinions if necessary in finding an appropriate solution to the task". (Interview 9 line 296-298)

Student Noor commented on the importance of discussion within the group:

> "One of the most important skills that I have acquired in the discussion within group is the ability to distinguish between facts and opinions". (Interview 8 line 327-328)

Working in groups creates mutual engagement including close cooperation among the group members and provides an opportunity for students to openly express their views and opinions as they can be assured of the understanding and respect of the other group members.

However, teacher May raised an issue about working in groups as she emphasises that group dynamics need to be managed by the teacher who knows her students, to get the right mix of personalities for effective learning:

> "It was generally a good experience; however, some groups consisted of active students, so the group was highly interactive. Another group consisted of mostly quiet, calm or passive girls, so their level of interaction was considerably lower. In applying this module, I realised that the groups must be reformed. This would allow me to form new groups with different degrees of motivation and intelligences." (Interview 21 line 258-262)

Therefore, attention needs to be paid during group formation and I concluded that a group should include students with mixed intellectual abilities and personalities where some students may be bright and deep thinkers, but not be very comfortable in discussion work. So, group dynamics may depend on personality too, and not just on intellectual ability. This is due to the fact that students learn from each other in determining how to perform a task effectively. Moreover, a mixed group containing students of different ability levels creates a positive balance of understanding in relation to the topic (Samsonov et al., 2006).

In the IE PBL module which was implemented in the school, the open discussion among groups was held at the end of the lesson, a discussion that was highly important as it allowed the students to express their opinions. Student Marah comments that:

> "This discussion reveals any missing points and may produce new ideas; I might have been wrong or have proposed weak resolutions concerning the problem and this discussion gives me and my classmates the opportunity to ensure that we have made the right decision". (Interview 6 line 324-327)

In the final discussion, each group should reach a solution supported by sharia evidence. In the observation of PBL on November 5th 2013, I noticed that one group shared a final discussion with another group and cited the same evidence from sharia as attested by the holy verse of the Quran "And give the women [upon marriage] their [bridal] gifts graciously. But if they give up willingly to you anything of it, then take it in satisfaction and ease". (Quran, Sura An-Nisaa,

Verse no 4). One student from a group repeated the “Their bridal gifts” section and posited that the pronoun concerned the woman who has the right to concede, not her father. This was a distinguished answer that impressed both the students and the teacher.

An open discussion helps students to rethink their position as they listen to the opinions and ideas of other groups and find out how they chose to deal with the problem. It can also help the students identify right and wrong decisions. Additionally, open group discussions give the students the opportunity to evaluate and review their decisions and opinions through a variety of different perspectives.

Another advantage of open group discussions was highlighted by student Qamar:

> “This open discussion summarises the important ideas that have been discussed during the class. I sometimes converse with Nada about how she decided on her solution. We can then continue discussing the issue and create new ideas, an aspect of the process that I really enjoy.” (Interview 10 line 218-221)

The above statement reveals that open discussions among groups help students to extract the main points of the discussion from different members of the class. This creates an opportunity for the groups to cooperate with each other and exchange knowledge. Members of the groups also share ideas and experiences that may be applied in real life situations. Additionally, it establishes a continuous discussion even outside of the classroom. Student Samar described that:

> “I aim to reach some agreeable points, especially with those who have different points of view on say polygamy within the groups. In some cases, we did not reach any solution for the problem so I went to a different class to discuss the case with my friend Rufaidah who was not participating in the programme.” (Interview 15 line 68-71)

The students decide upon a variety of solutions and no group is allowed to influence another in regards to their final decisions. This is one of the main features of PBL, as at the end of the lesson there is more than one solution as they have been made using an evidence-based methodology (ACS, 2014). It is important to mention here that finding more than one solution does not conflict with Islamic jurisprudence (examples are provided in section 2.5.3).

The findings generated here indicate that group work allows students to play a variety of different roles and facilitates them in developing a range of different skills. A high degree of cooperation within the group also assists students in increasing their knowledge and creating new ideas that the group can then take into consideration. Furthermore, the provision of an open discussion forum at the end of the session allows the students to assess their solutions in light of the decisions made by different groups.

The results presented above match those observed in the findings on teacher roles (Section 7.4.2) in that students were taught how to deal with arguments by expressing their opinions and supporting them with evidence; this practice always happened with a mean of 4.83. Moreover, with a mean of 4.71 the teacher always gave students the opportunity to openly express their opinions and analyse their answers. These practices occurred frequently which indicates that the teacher allowed the students to engage in arguments. As a result, the students became more effective in working in a group-based context.

As we learnt in the literature review, PBL can be a more enjoyable style of learning for students as they are more likely to engage with the process and collaborate as a team (Smith et al., 1995). More specifically, Samsonov et al. (2006) discovered that struggling students can benefit considerably from PBL as they work in conjunction with more advanced learners.

Furthermore, many previous studies have highlighted the value of team work, with Al-kuwaiti (2007) emphasising that the exchange of collective knowledge is a key to the effective implementation of PBL. The alternation of team roles within the group also facilitated students in experiencing different tasks, and the findings support those generated by Barrows (1989) who stated that the alternation of roles enables each student to develop a wide range of competencies and offers an equal opportunity for all students to participate in the discussion.

7.5 Discussion of the results

The second research question of this study refers to how the PBL module is applied in Bahraini schools in terms of its primary characteristics. The first element discussed is ‘problem presentation’, an element which is strongly connected to the students’ familiarity with the issue and the authenticity of the problem. Consequently, this element is conducive to learning as it

urges students to consider their previous experiences. Frequently using real life problems assists students in facing their everyday problems. The findings of the present study support the arguments of Schmidt and Moust (2008) and Schmidt et al. (2011) believe that the effective of a problem can only be determined based on the context in which it is presented along with the previous knowledge of students. The results of this research also support Hung's study (2006), which asserts that the extent to which a student is familiar with a problem can be directly correlated with the extent to which they engage with the issue. The outcome of this study along with the findings generated by previous studies substantiates key constructivist theories. Savery and Duffy (1995) claim that puzzlement or cognitive conflict is an effective way of improving learning outcomes as it contextualises the material that has been covered. In addition, according to Muijs and Reynolds (2011), advocates of the constructivist method believe that real life practical experience is more valuable than academic knowledge based only on information derived from textbooks.

From an Islamic perspective, Prophet Mohammad (PBUH) raised the issue about cultivating a student environment that is more conducive to learning. In Hadith Narrated Ibn `Umar: "While we were with Allah's Messenger (PBUH) he said, "Tell me of a tree which resembles a Muslim man. Its leaves do not fall and it does not, and it gives its fruits every now and then." It came to my mind that such a tree must be the date palm, but seeing Abu Bakr and `Umar saying nothing, I disliked to speak. So when they did not say anything, Allah's Messenger (PBUH) said, "It is the date-palm tree." When we got up (from that place), I said to `Umar, "O my father! By Allah, it came to my mind that it must be the date palm tree." `Umar said, "What prevented you from speaking" I replied, "I did not see you speaking, so I disliked to speak or say anything." `Umar then said, "If you had said it, it would have been dearer to me than so-and-so(Sahih al-Bukhari, n.d.).

In light of Al Hadith, we can determine how the Prophet Mohammad (PBUH) cultivated an environment that is more conducive to learning as the companions instantly search for information to solve the problem by building upon their previous experiences. Moreover, they posed many assumptions as they sought the answer by virtue of the environment in which they lived and sought to form their assumptions on the same basis. The application of previous experiences to the search for a solution to a new problem adheres to Islamic principles as

discussed, and also adheres to the key tenets of constructivism in emphasising the value of ideas generated by learners (Bartlett & Burton, 2012).

The role of the teacher is the second element analysed in terms of Bahraini school that have implemented a PBL module, and it is clear that teachers are responsible for facilitating the learning environment by assisting students in finding the correct answers through explanation, providing the required learning resources and helping students identify the difference between fact and opinion. The teacher must also maintain students' motivation and encourage them to adopt a PBL approach.

Furthermore, the means of 4.83, 4.71 and 4.70 (for items 7b, 6b and 8b) derived from the post-questionnaire indicates that teachers always play a key role in ensuring that students find evidence to support their answers, teachers accepted answers from students, and they requested students to critically assess and analyse their answers. It is worth noting that all three of these practices revealed that the teacher required the students to distinguish between fact and opinion and encouraged students to exchange opinions and ideas as they have similar past experiences. As a result, this approach to learning bridges the gap between the students' and teachers' previous experiences and encourages students to develop knowledge on the basis of their understanding and what they believe. From this perspective, constructivism states that the generation of knowledge enables students to play a more active role in the learning process as it facilitates them in assigning meaning to their previous experiences (Boghossian, 2006).

Data collected using qualitative and quantitative methods supports constructivist principles which state that learning is a process in which meaning is sought. Thus, teachers should try to conduct learning activities that encourage students to be creative and innovative in determining the meaning of knowledge (Muijs &Reynolds, 2011). Thus, carefully-formulated PBL can be used to assist teachers in guiding their students and can assist students in pursuing a high quality education (Knowlton, 2003). In this regard, it has been posited that the success of this approach lies in the quality of the learning structure, and the quality of the teacher as a highly knowledgeable, perceptive and judicious individual is required to guide students in their quest for knowledge (Schmidt & Moust, 2008). Furthermore, the findings can be correlated with those generated by Delise (1997), ACS (2014) and Bessant et al. (2013) in that teachers are responsible

for the provision of the required learning resources and the management and control of the learning process.

It is also interesting to note that the role of teachers in this Bahraini school that have adopted the PBL module is to maintain the commitment of students and to ensure they stay focused on the learning process from the first point of implementing it. However, the findings of the current study do not support those generated by ACS (2001) and White (1996), who posit that teachers may reject the implementation of the PBL module on account of their familiarity with more traditional teaching methods. Nonetheless, Li (2012) and Anthony & Abdul Kadir (2012a) found that teachers eventually grew more comfortable adopting a guiding role in the learning process despite their initial reluctance to refrain from the use of conventional proscriptive teaching methods. This outcome of this study along with the MoE's (2008) recommendation to make students the centre of learning (as opposed to the teacher being the centre) affected the teacher in practicing PBL.

The role of the student represents the third element of the PBL module and data generated by this study indicates that IE students in this KB school had performed self-directed independent learning effectively upon completion of this module. It is also clear that centring the teaching process on the student has increased the students' motivation and enthusiasm and has encouraged them to play a more active role in their education. In addition, this module has taught them how to find information when they encounter real life problems based on the experience they have acquired in exchanging knowledge and collaborating with peers in applying practical knowledge to the resolution of different issues. Boghossian (2006), in a discussion on constructivist principles, posits that learners attempt to assign meaning to the information they acquire based on prior experience and this meaning is then retained as knowledge. These findings substantiate those of Anthony & Abdul Kadir (2012) and Bessant et al. (2013).

These findings also substantiate the results of the quantitative data analysis which revealed that the practice "the teaching methods of Islamic Education give students the opportunity to obtain a deep understanding of the Qur'anic Verses and the Sunna texts" often happened with a mean of 4.08, and students' knowledge and comprehension of the Quranic verses and Sunnah texts had increased on account of their participation in the IE PBL module. This module also led to the evolution of student roles as students began to play a more active role in their learning, which in

turn developed their knowledge of religious texts and resources. On the other hand, the results of the questionnaire indicated that learning by rote is sometimes a common practice in the PBL module with a mean of 3.14, which means that students still report that they memorised material. Furthermore, the practice that textbook activities assisted students in the learning process and the practice that students memorised course material for examination purposes occurred between sometimes and rarely with means of 2.88 and 2.77 respectively. This revealed that students continued to learn by rote while participating in the PBL module. This may be attributable to the fact that these students were more familiar with conventional teaching methods or perhaps they were not given enough time to adjust to the new learning system.

It is also necessary to acknowledge, however, that the research results indicate a shift in student attitudes toward the new module. More specifically, the practice "teaching and learning by heart plays a significant role in the current teaching and learning process", where students always memorised material prior to participation in the PBL module with a mean of 4.20, dropped to a mean of 3.14 after having completed the IE PBL module. On this subject, Norman and Schmidt (1992) believe that students become more proficient in knowledge retention and recall when they are asked to expand their knowledge on a topic and increase their comprehension when this knowledge is first acquired.

Team work is the fourth element of the PBL module and the findings generated by the present study indicate that students have improved their self-directed learning abilities, which has partially been attributed to the effective organisation and management of team activities. The teacher adopts a guiding role in the process as team members' work together to find an appropriate solution. A diverse range of perspectives on the issue are explored through group discussions as those with advanced knowledge of different areas contribute their knowledge or viewpoints on the topic being discussed. This facilitates the generation of fresh knowledge and stimulates collaborative innovation. These findings substantiate those of Samsonov et al. (2006), Anthony and Abdul Kadir (2012b), Bessant et al. (2013) and Imafuku (2014) who support the notion that team-based learning encourages students to actively engage with the topic and determine what information they require, this process then facilitates the formulation of recommendations on how the issue can be resolved. Furthermore, the data derived from the post-questionnaire regarding PBL implementation shows that group work always happened with a

mean of 4.70, which means that working in a group developed learning among this group of Bahraini students. The findings here adhere to the beliefs of constructivist advocates who emphasised the value of collaborative work in evaluating students' comprehension and the analytical abilities of different groups in order to deepen the extent to which concepts, events or phenomena are understood (Savery & Duffy, 1995; Hartle, et al., 2012). A study conducted at BTC reported that most of the students satisfactorily demonstrated teamwork skills except two (Nada and Ahmed). For Nada, her lack of teamwork was attributed to her feelings of discomfort about being the only female in the group, though she was welcome. The issue with Ahmed was different. Observing him revealed that he has motivational difficulties due to his disinterest in any type of learning, not as a result of disliking teamwork (Abdul Razzak, 2012). In another study conducted by Kassab et al., (2005a) on medical students at the Arabian Gulf University in Bahrain, they raised an essential social point regarding to the gender differences of the students within the learning groups behaviour in student; as a result they ensured that the adequate led tutorials clarifications are of high importance for the programs adopting PBL for the first time. As for the study at hand, the researcher did not face any obstacles related to gender as it was applied in a female school and the students seemed to be motivated to be a part of the whole learning process.

To sum up, the investigation of the IE PBL module implementation in KB has demonstrated that knowledge construction and creation in an environment that focuses on prior knowledge seem to be of little value and not activated to be appropriately employed inside Bahraini learning classes. That is to say; integrating the practical and theoretical information in reconstructing the learning topic in a real life context where students will be more familiar and motivated is lacked. Such lack might be attributed to the little conducted research in this area, lack of efficient and relevant knowledge, and also lack of relevant training. Additionally, the IE PBL module satisfies the objectives of the MoE and IE in prioritising the interests of students and encouraging them to play a more active role in society. Nonetheless, it is necessary to determine the impact of PBL in terms of IE as provided to students in KB. Therefore, the third research question of this study determines if PBL can be integrated into the current IE system in KB.

Chapter Eight

The Integration of IE PBL in the Current Islamic Education System in the Kingdom of Bahrain

8.1 Introduction

The findings of this chapter are derived from interviews and the observations of PBL, as well as the post-PBL questionnaires which investigate the interaction of students and teachers in applying the process of PBL. As a result, the benefits and challenges of the PBL approach in a Bahraini School in IE have been identified and compared with the literature review in chapter three where PBL was applied in different contexts. However, the current research found that there were similarities and differences in both the benefits and challenges of PBL as well as new benefits and challenges that emerged in the context in KB in IE.

8.2 The Benefits of PBL in IE in the Kingdom of Bahrain.

The application of PBL in IE in KB generated three main benefits including knowledge, skills, and attitude. Knowledge consisted of developed knowledge and its application; skills gained were critical thinking, building students' self-confidence, responsibility, and expressing opinions freely; behaviours consisted of improving attitude, strengthening social relationships, and increasing faith. In the second part of the post-questionnaire, eight practices were identified in order to demonstrate how the students achieved these practices in IE when applying PBL. These practices are arranged as numbers from 9b to16b as shown in the following table:

Items	The practices that students achieved in Islamic Education in PBL
9b	I apply and use the information obtained in other real life situations.
10b	I learn through analysing and understanding processes.
11b	I participate in activities that help in the acquisition of learning.
12b	I exchange views and ideas about our lessons.
13b	I conclude and obtain information for myself.
14b	I connect the learning material with real situations
15b	I understand the reasons behind Islamic verdicts.
16b	I learn through groups that help me learn.

Table (13) The practices of teaching and learning in IE when applying PBL in part two "post questionnaire" as numbers from 9b to16b

Table (14) illustrates the results obtained from the analysis of eight items in the post-questionnaire of IE practices while PBL was in use from students' perspectives.

	Frequency							
Items	Always (5)	Often (4)	Sometime (3)	Rarely (2)	Never (1)	Mean	Order	Std. Deviation
9b	30	38	22	7	3	3.85	7	1.03
10b	42	25	23	9	1	3.98	6	1.05
11b	26	38	27	8	1	3.80	8	0.95
12b	62	30	5	2	1	4.50	2*	0.77
13b	50	34	16	0	0	4.34	3*	0.74
14b	49	33	14	4	0	4.27	4*	0.85
15b	42	43	10	3	2	4.20	5*	0.89
16b	73	13	10	1	3	4.52	1*	0.94

Table (14) Students' responses to the practices achieved in IE in PBL

The table demonstrates the order of the practices achieved by students in the course of Islamic Education teaching and learning during the application of PBL. It shows that item 16b "I learn through groups that help me learn" comes first with a mean of 4.52, this is close to item 12b "I exchange views and ideas about lessons" with a mean of 4.50. Item 13b "I conclude and obtain information by myself" with a mean of 4.34 comes third. The fourth item is "I connect the learning material with real situations" with a mean of 4.27. The item 15b "I understand the reasons behind Islamic verdicts" with a mean of 4.20 comes fifth. This demonstrates that PBL helps Bahraini students to work within a group which helps them to learn and exchange views and ideas. Also, obtaining information by themselves and learning through real life situations plays a vital role in their learning.

8.2.1 Knowledge

In the KB context through IE PBL, knowledge is acquired by linking new topic content with prior experiences in and outside school. Knowledge is defined here as the ability of students to create new information. This enables a teacher to discover students' capabilities in and outside school, which in turn allows students to apply knowledge in a new context. However, some educationalists argue that learners will "develop the same level of knowledge" in PBL compared to other conventional pedagogies (Saven-Baden and Major, 2004, p. 121). This study revealed that there is a development in students' knowledge: I asked students 'does PBL developed your knowledge or not? in employing PBL, the students admitted that PBL developed their knowledge through exchanging ideas, discussion, and awareness of social problems. Shanonuh, a student, commented that exchanging ideas during a PBL class contributed towards developing their knowledge. She said that:

> "Yes, by using the PBL approach our knowledge developed more than through using the traditional one. Everyone in the group had their own knowledge: my group and I shared this knowledge together. In addition, we worked with other groups and got the best results from discussing the ideas together. Sometimes, I could not find the answer myself, so I got it through sharing ideas with others." (Interview 5 line 262-266)

In this study, PBL demonstrated that the students developed their knowledge by raising their awareness of problems occurring in their society. For example, in conventional pedagogies, the students were not made aware of the problems happening in society. However, when using PBL, they came to the conclusion that most of the problems they learned about in class were real-life problems. Student Marah stated that:

> "My knowledge developed. For example, I did not know about the problems that were happening in my society, but I learned that they were real problems and they happen every day in my society. I did not know about such issues in the past, now I recognise them and know about them." (Interview 6 line 390-393)

This view was echoed by Manal, another participant, who gave an example of how PBL helped her to develop her knowledge:

> "I learn a lot about the problems around me. Learning more evidence and about others' experiences is new knowledge for us. I considered it to be a development in our knowledge." (Interview 6 line 361-363)

The outcomes revealed in the previous chapter: studying a real problem using analytical thinking and materials used alongside the students' previous experiences, led to developing students' knowledge. This can be observed in the interviewees' perspectives and the PBL observation.

Smith et al. (1995) argue that the PBL approach aims to encourage critical thinking to solve a particular issue under study. Thus, PBL in this study deals with the same curriculum: therefore, the negative effect of lowering the students learning abilities was not shown; rather the students showed developed knowledge. In addition, students related the new topic content to prior experience in and outside school. They also applied their prior experience and what they learnt in class to real life environments. This helps students to be able to identify the appropriate link between their knowledge and contexts, which is considered to be a main concept in constructivist theory (Savery & Duffy, 1995). According to Schunk (2012), a clear connection to our existing knowledge improves absorption of new knowledge.

The current research found that our preconceptions affect how we learn. Talking about this issue, Shadya, a student interviewee, said:

> "My group and I used to bring evidence from our previous learning, including Quran verses and Hadiths. We watched similar problems on TV or read about them in a magazine, and we found this useful to support our decisions. I mean from our own previous experiences from places other than the school textbook. Moreover, we used to take so many courses in memorising the Quran and attended lectures on different religious topics in Sunna outside of a school setting." (Interview 11 line 214-219)

Auhad, another student, made the following comments:

> "The problem mentioned in the lesson about "Maintenances" is that it is the husband's responsibility to spend on his kids and wife. This happened to my aunt. When my group and I were given this problem, I related it to my aunt's problem.

> I told my friends that I had experienced this problem in the past. In brief, my aunt was divorced because her husband did not spend on her and her kids, she tried to solve this problem with her husband, but they did not reach to a solution." (Interview 3 line 84-89)

Interviews with teachers identified some of the students' characteristics during the learning process. Teacher May commented that:

> "They are cultured, they are good readers, they have knowledge about so many subjects, and they used this information in class. I noticed that some students dealt with the problem with great responsibility. In the PBL module, I can explore the students' potential and make use of it in solving problems." (Interview 21 line 226-229)

The PBL observation dated 10th November 2013 for the lesson about maintenances confirmed the above statements as it linked the lesson to students' previous experiences: One student said, 'in previous lessons we learnt that a wife should do her best to look after her husband and he should provide her with maintenances.' Another student volunteered that, 'this is extra because a verse from the Quran states that "men are in charge of women by [right of] what Allah has given one over the other and what they spend for [maintenance] from their wealth" (An-Nisaa. 4:35). This is due to a man being responsible for leading his family.' She continues her argument, 'I have a sister who is married but my father does not provide for her or support her financially because this is the responsibility of her husband.'

Another way of using previous experience within lessons in school was identified. In the PBL observation mentioned above, I noticed that the students were able to connect their current lesson with previous ones. I heard the students discussing the fact that a man is able to marry without a guardian. They were connecting the lesson with a prior one regarding marriage contracts. A woman who wishes to marry a man without the permission of her father must get consent from a judge. Initially, they attempted to recall the evidence required for the problem at hand; they then reviewed the evidence using the textbooks. This allowed them to recall their own knowledge from previous lessons and relate it to the current lesson in order to solve the problem.

A Student called Roah provided another example of how they related their previous lessons to the current one:

> "My group and I recalled the knowledge that was learnt in our lessons in school, and then we started searching for the proofs from our textbook to make sure we did not miss any evidence." (Interview 17 line 271-273)

When resolving a problem, the students used their own knowledge as a resource to exchange their experiences. They were able to discuss the issue with others who had already dealt with it in their lives and thus gained a new perspective that they might not have considered otherwise. The students acquired different experiences from different situations. They connected the problem to their past experiences, and this allowed them to interact with it in order to solve a new problem. This demonstrates that the PBL module encourages the application of prior learning gained from both personal experiences and in school.

Moreover, playing an active role in criticism and reflections, due to the opportunity provided by the discussion of opinions and using their own knowledge as a resource, allows for the capabilities of the student to be discovered. In this regard, Savery and Duffy (1995) state that an objective of constructivism is to create an educational situation that encourages the student to think. The research found that the recommended IE PBL module offers students a chance to grow and improve their abilities. Respondents were asked to indicate whether their abilities were explored when using the PBL module. Shahd, a student, said that:

> "When my group and I solved a problem, we exploited our abilities and all our general information to obtain a written answer. We explained the idea and made sure other groups understood what information we had. I mean, there was a challenge. We expressed our opinions to each other." (Interview 18 line 213-216)

Shahd was asked: 'what are the abilities you have discovered?' She replied:

> "I can persuade the girls in the class of some things which they could not understand before by giving them evidence." (Interview 18 line 220-221)

Teachers suggested that other capabilities were discovered in the IE PBL module. Jamila stated that:

> "In the groups that I had, there were already some creative students and I expected them to provide creative ideas. The thing which surprised me was that there were less able students and I did not expect them to participate effectively in the activities. They were able to give excellent and creative ideas." (Interview 20 line 309-312)

When I asked Jamila to provide an example of this creativity, she replied:

> "In the lesson about the 'wife's rights', it is written in the book that it is the wife's duty to do the housework. Through discussion, the students concluded that it is the husband's responsibility to provide a servant to do the housework. It is not the wife's duty." (Interview 20 line 331-334)

Curriculum specialist Ahmed confirmed that students were creating new ideas in this lesson. He commented that:

> "Yes, that is right and this is mentioned in the amendments introduced to the book. But it is great that students discovered this by themselves." (Interview 22 line 139-140)

According to teacher May, a number of capabilities were unearthed in the students:

> "The module revealed the students' potential and abilities. I discovered that some students are excellent at the art of debate, some are excellent at delivering speeches and others are very persuasive. Some had great knowledge of certain matters." (Interview 21 line 219-221)

The skills that the Bahraini students learned were applied to real life problems. Respondents were asked to indicate whether they employed problem-solving skills in their lives. Student Auhad gave an example:

> “I was happy for that ability. I was satisfied that I could do something to address the problem [I had with my family], and the most important thing was that the problem started to dissolve. Mum started listening to me, and this is something new in my family.” (Interview 3 line 140 -142)

Student Sarah provided her own example in response to this question:

> “Mmm, in my study, getting a scholarship for example, First, I identified the positive and the negative sides of the problem. For example: the subject of study. I decided what to study after I identified the positive and negative aspects of the subject, then I identified the factors that may affect me, and made sure that my family would accept and agree with it. By following these steps, I was able to solve the problem.” (Interview 2 line 119 -123)

When confronted with real life problems, the students began to utilise their problem-solving skills outside the classroom activity, such as by solving issues with their parents and choosing a university course. This showed that the IE PBL module helped them resolve real issues.

A third example from student Noor illustrates how applied knowledge can be used in another situation:

> “I remember that there was a problem in my family where my father preferred a boy to a girl. This created an issue between my family and me. I used my skills to make them listen to me and discuss this matter. I told them that there are no differences between a boy and a girl, and I gave them proof from our religion until they were convinced.” (Interview 8 line 165 -169)

It can be concluded that the above cases demonstrate the importance of PBL in creating a relationship between students and real-life environments that encourage them to solve their problems by employing problem-solving skills. However, it is not always possible for the students to resolve their issues. In another interview, student Fatima commented that:

> “Once my mother was talking about the bad events in her life with my Dad, I did not like that, so I said, “Mum, can’t you see any positive things in my father”? I

tried to change her way of thinking: unfortunately, it turned against me." (Interview 9 line 276 -278)

This statement shows that the students could not resolve every issue with their current skills in applying knowledge. In this example, the student may not yet have the wisdom to distinguish between an objective problem and a discussion driven by emotions and feelings.

By the conclusion of the course, the learners appeared to feel positively about the PBL approach in terms of their utilisation of previous learning, deliberation, information exchange, knowledge application, and the use of real problems within exercises. It is most probable that the IE PBL approach facilitated the creation of an atmosphere which developed learning potential and gratification derived from learning.

8.2.2 Skills

Through the creation of knowledge, students are able to obtain a number of skills. Through the application of the PBL module, Bahraini students enhance three categories of skills: responsibility, building self-confidence, and critical thinking.

The literature review revealed that students are responsible for their learning. However, this research proved that there are additional types of responsibility: responsibility in making a decision; participation within a group; and responsibility for raising the community's awareness of problems within it.

Self-directed learning (SDL) means that students are responsible for their own learning: they know that their textbooks and teachers will not provide them with a complete solution. For the PBL observation dated 3rd November 2013 regarding the first lesson of the PBL module (dowry), the teacher informed students from the start that she would not provide them with the solution and that they would have to reach a solution by themselves. During the lesson, a student asked the teacher to provide them with the answer to the problem: the teacher said, 'no, you should find out the answer by yourself.'

In the interviews the participants were asked, 'how can you be responsible for your learning?' Talking about this issue, the interviewee Marah responded that:

> "I learned how to depend on myself when searching for proof and not to have everything ready. When I have a problem and have to find a suitable solution for this problem, I feel that I am responsible, need to work hard, and depend on myself in order to achieve the task." (Interview 6 line 86 -89)

In this regard, students learned to be responsible for their decisions. From the viewpoint of the students, the interviewee Khadija stated:

> "I extract the solutions with confidence. I feel that I am responsible. I have a great task to do. I have a great feeling of responsibility. If I make the wrong decision, I might destroy the person's life and future. I have to think deeply before making any decision, and that influences my spirit towards the matter." (Interview 1 line 251 -254)

In addition, student Noor raised another point with regard to responsibility:

> "To be a responsible person you need to face the problem and not ignore it. You have to face it and solve it, whether by yourself or with the help of others. The most important thing is to be responsible for your decision in solving your problem." (Interview 8 line 518 -520)

Students must depend on themselves when the IE PBL approach is used. They must reach conclusions and derive results through research and analysis. They occasionally encounter obstacles that they must overcome. The students are responsible for their own learning and this encourages them to rely on themselves to identify Islamic rules and not rely solely on judges to resolve disputes. Moreover, they must think critically and examine an issue from many perspectives when they are responsible for making a decision. This makes them aware of taking responsibility in order to find out the most suitable decision and avoid any unnecessary pain or suffering.

The second type of responsibility to arise in this research was the responsibility of students within groups to actively participate in completing a task. A number of students responded to the same question about responsibility. Student Shadya responded that:

> "I am responsible for my opinion. I feel it is important to participate seriously to help the other members of the group find the best solution." (Interview 11 line 203 -204)

In the PBL observation dated 20th November 2013, in the lesson on husband's rights, I noticed that there was a serious discussion within the group that helped students reach a solution by raising questions for a deeper understanding; they suggested assigning an arbitrator from the husband's family and the wife's family. As mentioned in the Quran, Allah said, "And if you fear dissension between the two, sends an arbitrator from his people and an arbitrator from her people" (An-Nissa. 4.35). One student said, "a mother must not be involved as she will be on her daughter's side", while another student brought an example from a real life situation: "a relative of mine had a conflict with her husband, but her mother defended the husband, saying that her daughter was at fault." The third student commented that the verse stipulated that the broker must be 'wise' and the mother in this case might meet this criterion. The fourth student said, "what if she's married but living abroad, i.e. her family are in another country?" the first student responded that there are various ways and means of transportation and communication that help a wife to keep in touch with her parents. The third student argued "what if such means of transportation and communication are not available?"

The research found that the students needed to make an effort to actively participate and interact with other members of the group in order to determine the appropriate response. The PBL approach gives the students the opportunity to resolve the problem through participation and involvement in the task. Thus, the PBL module proposed creating effective cooperation via small groups with students of mixed abilities to find the solution. This contradicts Muijs and Reynolds (2007), who claimed that working in a small cooperative team may encourage reliance on the team's most powerful members rather than stimulating independent study. On the other hand, Samsonov et al., (2006) stated that both intelligent and less-able studies students might benefit from PBL and function well in the groups.

The third type of responsibility revealed in this study was the responsibility for sharing their problems with the community. Student Roah responded:

> "I am responsible for my opinions, especially when I think that this situation or problem may happen with me. I also feel it is important to be part of society and take responsibility to help members of society to find the best solution. This activity of the PBL approach raised my awareness of being a good citizen and supports my community by providing proofs, ideas, and appropriate solutions." (Interview 17 line 149 -153)

The respondents were asked if there are courts, judges, and religious leaders who are responsible for solving the problems that occur in society. Student Manal commented:

> "Right, but I am also a responsible person, I have to deal with my problems and try to solve them, and it is not acceptable to refer to the court whenever I face a problem: I have to solve my problems by myself first. Moreover, I feel it is my duty to help others solve their problems, and give them advice, there are so many people who face problems but they do not refer such problems to the courts." (Interview 7 line 103 -107)

Teacher Jamila confirmed the above statements:

> "You can observe clearly in their determination to find solutions to the problems they are dealing with. You can see that they are determined, argue fiercely, and are very motivated. They feel a sense of responsibility towards their society and concern about social problems. They want to do something to help people who have problems. I appreciate this, I feel proud of my students when I feel they are responsible and concerned about their society." (Interview 20 line 223 -228)

Contributing to solving problems within the community is a type of responsibility that turns the students into more aware and responsible members of society. As a result, learning becomes a positive approach to solving problems by sharing opinions and finding out an appropriate solution to a problem. Students need to confront their problems and attempt to resolve them; this builds their confidence in applying problem-solving skills and sharing their problems with others. This demonstrates that Muslim students have an obligation to be thoughtful and critically reflective about their religion.

The second type of skill developed during the implementation of the IE PBL module is students' self-confidence. In this respect, Norman and Canada (1990) have argued that the procedure of education must not be focussed on gaining knowledge: learners should instead obtain problem-solving skills so that they can tackle any problem and acquire knowledge as and when they require it. The PBL approach aims to give the student self-confidence and the ability to solve problems in the future. With reference to the above discussion, I asked the teachers and students if the IE PBL module made the students more confident. A summary of students' interviews reported that the PBL process gave them great confidence in themselves and taught them how to express their opinions clearly and without hesitation. They stated that they might face problems in their daily lives and now felt more confident in tackling problems without hesitation.

Students explored how the IE PBL made them more confident. Student Fatima illustrated that:

> "I now have the ability to discuss with others; I used to be afraid of that. I was afraid to make mistakes because when you have strong evidence and know how to deal with the problem then you are self-confident enough to stand and express your opinion without any hesitation or fear. That is real self-confidence." (Interview 9 line 296 -299)

From another perspective, teacher May pointed out a further benefit of self-confidence:

> "The girls obtained debating skills because their self-confidence was increased. The students can express their opinions clearly and without any fear. They learned how to accept each other's opinions. They learned the art of persuasion without our interference, and that enhances the student's communication skills. It is important that any student can stand and express her opinion or criticize others full of self-confidence and courage." (Interview 21 line 337 -341)

These responses from student and teacher show that some students gain confidence when they are able to base their opinions and arguments on evidence. Even when the other party has an opposing opinion, the students are able to communicate with confidence.

On the other hand, some reported that PBL did not develop their confidence, as Student Munera said:

> "No confidence can be gained in this way. It is better for our cognition if the teacher gives us the final answer as this will increase my confidence." (Interview 13 line 316 -317)

It can be seen that Munera lacks confidence. This could be due to her full reliance on her teacher prior to the PBL approach, which could affect her confidence when engaging with the task. However, both teachers who applied the PBL module observed the students' self-confidence. Teacher Jamila said:

> "When we argue with them regarding an issue, they discuss it with us as confident professionals. You can observe they have acquired much more self-confidence through their discussions, and the way they are talking and expressing their opinions. Moreover, you can observe self-confidence in taking decisions, and the way they express their opinions without hesitation or fear." (Interview 20 line 88-92)

The curriculum specialist Nwal confirmed that self-confidence is one the objectives of the MoE:

> "Our objectives now are to maintain the confidence and develop dialogue in the student's personality." (Interview 24 line 54 -55)

During the research, I observed that the teachers had belief in their students and their ability to determine the correct solution to a set problem. The teacher played the role of a facilitator in the learning process. They did not intervene when the students discussed their opinions, they merely observed. The students exchanged knowledge with their teachers and they occasionally knew things that the teacher did not.

A summary of students, teacher, and curriculum specialist responses and 40 lesson observations indicate that the PBL approach provides students with the opportunity to express their opinions and therefore realise self-confidence.

This study developed the students' ability to express opinions freely. It encouraged students to present their points of view and provide reasoning to solve a problem. To provide evidence of how PBL works in a Bahraini school, students were asked about whether they were encouraged

to express their opinions in the classroom. A summary of the responses indicated that they could disagree with their teachers. They stated that they had the right to express their opinions and had the ability to discuss it with the teachers until they reached to a common understanding on the matter in dispute. They listened to other groups' opinions and found alternative solutions or opinions that had stronger evidential backing. Students claimed that this changed their opinion about the problem, which allowed them to solve it in an effective manner. Overall, this benefited them greatly.

In the PBL observation dated 3rd November 2013, teacher Jamila started the lesson by thanking the students for their performance in the problem-solving lesson about dowries. One student remarked that all of the students had not come to a consensus on the issue. The teacher commented that having more than one solution is a characteristic of the PBL approach.

In the PBL approach, the students were free to express their opinions and were able to analyse and evaluate different alternatives to reach different decisions. Moreover, it encouraged them to arrive at appropriate decisions and respect opposing perspectives.

There was an objection raised by one of the students with regard to expressing opinions. Student Sarah argued that:

> "Some students within groups sometimes did not change their minds. The girls kept defending their opinions and they did not accept other students' opinions." (Interview 2 line 287 -288)

In contrast, teacher Jamila had a different opinion regarding expressing opinions freely. She stated that:

> "This is an obvious skill that you can notice. In the beginning, they did not have such a skill, as they thought that their conclusion was the absolute truth. With the passage of time, and through the procedures of PBL, they accepted the opinions of others." (Interview 20 line 408 -410)

It can be seen that this objection was a result of the students' prior education, where they did not have the opportunity to express their opinions freely. However, teacher Jamila reflected that the

students' learning experience had changed constantly during the lesson. This showed clearly that PBL had a positive impact on the majority of students' learning behaviour.

I asked the curriculum specialists, "Do you believe that expressing an opinion is restricted to the high-level students, as stated in the MoE's Teacher's guide?" Nwal replied:

> "The lesson plan is divided into three ability groups. The objective of expressing opinions is only given to high-level students. However, in PBL, it is worthwhile to include other levels." (Interview 24 line 71-73)

Most students were capable of sharing their opinion. During the PBL observation dated 3rd November 2013 in the lesson 'dowry', I observed that the majority of students were encouraged to take part and share their opinions. A disagreement arose: one student claimed that you should provide proof if you felt that a woman is entitled to a dowry without the knowledge of her father and that you had to provide proof if you felt that the woman did not deserve a dowry. The students engaged in democratic practice: they heard opposing perspectives and were free to agree or disagree with them. The Bahraini students in the PBL module were able to express their own opinions and accepted the opinions of others.

The final skill is critical thinking, which consists of a variety of abilities. It involves making arguments, acknowledging different points of view, drawing different conclusions, and reflecting on different issues. These abilities were identified in the current research. The Bahraini students learned how to evaluate options, judge the information, and determine the conclusions, arguments, and positions of other people. I asked students, "Do your discussions involve arguments?" Student Sarah replied:

> "Mmm, when my group and I start discussion, each girl gives her opinion, and we all have different opinions. We exchange ideas, provide proofs, and explain why an opinion is wrong… we finally reach the correct solution by finding the errors and correcting them." (Interview 2 line 367 -370)

Shadya, another student, stated that the discussions were a place to gain skills and comprehension. She hypothesised:

> "Perhaps the less academic students know more than me in another field of knowledge: we exchanged ideas and experience." (Interview 11 line 252 -253)

The quotes above demonstrate that the students were able to derive the answer through group discussion when they could not determine it on their own. By analysing opposing opinions, they engaged with the problem: the differences between their points of view required that they assess the available proofs and identify the best one. This aided them in finding the right answer.

The students became able to assess data from a range of perspectives. Student Khadija claimed that:

> "In the discussion, at first I said that her father had the right to take her dowry. After we discussed the matter, I was persuaded that her dowry is hers alone. While we managed open discussion, the other students in the class explained their position with strong evidence in a way that made me change my mind." (Interview 1 line 63 -66)

Samar, another interviewee, discussed how they assessed the arguments:

> "If a member of the group adopts an opinion, we determine if her declaration is based on proof or if her judgment has been influenced by feelings of any kind. We then continue the discussion until we reach the correct legal judgment." (Interview 15 line 94 -96)

This corresponds with what teacher Jamila said:

> "During my teaching session, I observed that the students have acquired the ability of persuasion. They have learnt the art of debate and how to persuade others." (Interview 20 line 217 -218)

These responses illustrate that the students are able to assess an argument and select the most conclusive one. They are able to analyse opposing perspectives and defend their own. This enables the student to persuade others to adopt their opinion.

Moreover, another aspect of critical thinking is that the students learn how to select an argument by balancing the proof and picking the one that best suits their needs, as stated by student Manal:

> "The party who is complaining might be the guilty party but sometimes they are not. When making our decision, it is important to listen to all parties, assess all of the solutions, and discuss every detail." (Interview 7 line 194-196)

The PBL modules aimed to give students the ability to assess arguments from opposing perspectives and influence the students' future decision making process when they employ it. This module developed the students' critical thinking abilities. This is in accordance with Savery and Duffy (1995) who argued that constructivism relates to tasks that require students to think critically and use various approaches to assess the information.

The MoE policy supports the inclusion of critical thinking (MoE, 2006). However, the curriculum specialist Nwal states that only intelligent students benefit from critical thinking:

> "I think that the PBL module helps develop analytical thinking. I can say that this approach leads the students to a certain level of thinking, but I cannot build my approach on one method as we have three levels of students: less able students, able students, and intelligent students. I must emphasise the fact that the problem-based learning approach is classified as high-thinking level." (Interview 24 line 109-113)

The fieldwork contradicts the argument raised by Nwal. The PBL observation dated 14th November 2013 on the lesson 'husband's rights' proves that all students engaged in questioning and answering each other. For example, one student asked "which verse do you need for the answer?" another replied "we do not want the evidence to be the answer: we need it to lead us to the answer." Another indication that emerged during my observation of the same lesson was when the students analysed the problem "what are the causes of divorce?" During discussions in a small group, the students mentioned that there are no causes for divorce. However, the students generated new questions based on their deep understanding of the problem. As noted on their worksheets, the questions were as follows: "is it an obligation for a wife to look after her husband? Is it the husband's right to demand being taken care of? Is Ahmed's wife obliged to

obey him? Is it permissible for a wife to go out of the house without her husband's consent? Why must a wife obey her husband?" At the beginning, the students said there was no cause for the problem; however, when they looked thoroughly at the issue, they came up with analytical questions.

According to the curriculum specialist Nwal, the MoE considers only a small proportion of students to be capable of employing analytical thinking. However, this study has shown that mixed-ability students can successfully use critical thinking skills. The post-questionnaire shows that with mean 4.70 always teacher asked them to clarify and analyse their answers. This shows that the students believe they can play an active role in criticism and reflections due to the opportunity provided by the discussion of opinions and positions. Consequently, students learn how to determine what others are thinking and develop their own critical thinking abilities.

One of the objectives of the MoE is to encourage students to become critical thinkers in their studies. The students developed their self-confidence and their ability to convince others of their perspectives. By reflecting on the sources of Islam, the students could explore their potential.

8.2.3 Attitude

In PBL, the students expressed better attitudes towards their learning techniques, families, and communities. Bahraini students were also strengthening their social relationships by interacting with the PBL module, participating in group work, and by discussing and accepting opposing opinions. In addition, increased faith emerged based on the nature of this study.

Respondents were asked to indicate whether the PBL module changed their attitudes where four cases were raised from the students.

Firstly, student Nauf commented that her attitudes towards PBL changed throughout the course:

> "In the beginning I found it strange. It came a little late and I was used to other teaching methods. I thought only of answering the exam questions. I had not been trained in such programmes. Later, after I tried it, I felt that it was a good practice towards willingness to involve myself in problem-solving and can be used in my daily life and in future." (Interview 4 line 343-374)

Secondly, student Noor provided evidence of changing her attitudes when employing the PBL method:

> "Through this method, I learned many religious values, such as how to be good to my parents and others, such as sisters, teachers, and members of my community." (Interview 8 line 177-178)

Thirdly, student Shamma found that the PBL approach changed her attitude towards group assignments:

> "It changed my behaviour towards group work. It motivated students to work harder." (Interview 14 line 26-27)

Fourthly, student Marah stated that her attitude regarding the opinions of others and team work was improved:

> "Before the PBL module, I did not accept the opinions of others. I took much time and used to waste time on useless debates. Now I accept others' opinions, and I finish my tasks in less time. The most important thing is the cooperation, which has been maintained among students." (Interview 6 line 423-426)

Teachers commented that the PBL approach was new to the students, so in the beginning they were not so motivated to enter into the new experience; they looked on it as a challenge. Teacher Jamila said that:

> "I encouraged them towards this approach by bringing out the benefits of using it; after this, they involved themselves in the activities and liked it. They gradually became more interested." (Interview 20 line 384-386)

According to Baden and Major (2004), PBL can alter attitudes and should be structured to do so. The alterations to the attitudes of the Bahraini students were evident in this study. This demonstrates that the PBL approach plays a vital role in changing students' attitudes towards their study and daily behaviours.

The social ties between the students improved when they worked in a team. The research determines how teamwork affects the social connections between students. The PBL approach implemented in the Bahraini school revealed that it helped to strengthen the students' relationships. Student Sarah commented that:

> "The most important element is the element of cooperation between the group members, and all of the girls in the group are content that we adopt the point of view or the solution on the basis of strong proofs. This means that my group and I are confident in our opinion and strongly believe that it is correct, and that is something so interesting and motivating in the group work, we feel that finally we are so close and united, and that gives us the feeling of joy and satisfaction." (Interview 2 line 375-380)

Student Khadija included a new point regarding the issue of relationships between group members:

> "I can say that the level of cooperation has greatly improved, and, as group members, we have become close to each other, you can explore your partner's personality." (Interview 1 line 361- 363)

In addition, student Nauf gave an example of friendship amongst the learners:

> "The most important change is feeling that all the girls are one family; we feel that we are the pivot of each problem, we started looking at things from different angles, and we feel we have grown up a lot." (Interview 4 line 303-305)

Teacher May mentioned the second type of relationship between the students and teachers:

> "The proposed PBL module provided the opportunity for the students to link the problems in question to their own lives. They became more open, started talking about their own problems with me, and sought advice. In this way, we became closer to the students when using PBL than the previous method. Actually, I had a close relationship with them. I could say that this kind of relationship was applied inside and outside the classroom." (Interview 21 line 206-211)

I concluded that as the team members grew closer to one another, their level of social interaction increased. They were able to improve their communication skills and discover each other's personalities. The connections between the students and the instructors were improved inside and outside the classroom.

According to Engle (1999), PBL encourages students to develop the ability of learning rather than doing so solely for the purpose of developing their knowledge. The suggested PBL module for Bahraini schools teaches students the ability to learn. However, this aspect of the PBL method needs to be inculcated.

The primary goal of IE in Islamic nations and in KB is to promote faith. This research found that students believed their faith was increased by PBL. I asked the students if their faith was increased due to the opportunities offered by the PBL module. Student Marah replied that:

> "Yes, sure, as it motivates us to learn more and look for more hadiths and verses of the Quran, and that develops our knowledge. We will have a large number of proofs, we learn in a different way, I mean we not only give the answers, but also know the reasons behind each proof, as we have to provide proofs for each answer." (Interview 6 line 63-66)

When I asked Marah about how her faith was increased by understanding the reasons behind the answer, she responded:

> "When you deal with the problem and start looking for solutions and proofs to support your answers, you refer to the Holy Quran. You discover how Allah is great and merciful; learn the reasons for Halal and Haram, and how Allah provided us with solutions to our problems, whatever they are. This is a great advantage for Muslims. They are comprehensive solutions. If you need any help, advice, answers, or solutions to any problem in your life just open the Holy Quran and you will find what you are looking for." (Interview 6 line 70-75)

Student Munera provided an example of increased faith:

> “Yes, when I searched for proofs, I really felt it was better than reading them in a casebook. It was more practical. I felt that my belief increased. For example, the problem of polygamy was very critical; I couldn't accept the idea that a man could marry more than one woman but once I read the proofs, I started to feel that there are positive reasons behind it.” (Interview 13 line 210-214)

Students study religious values; they obtain a feeling of satisfaction and gain a sense of spirituality by finding evidence that relates to their daily lives. By correcting their comprehension of a strict religion, they are able to increase their faith.

Student Manal mentioned another case that explained the value of referring to the Quran and the Sunnah:

> “I feel that my belief in Allah has increased a lot due to the vast and continuous reading, and looking for proofs. I might have a certain practice that I do in my daily life and I do not know whether it is prohibited or results in sins that make Allah angry with me. Dealing with problems this way makes me aware of many wrong practices that I have to avoid.” (Interview 7 line 157-161)

When students search for proofs to determine which practices are correct and which are not, it is necessary to re-read the Islamic texts (the Quran and the Sunah). As a result, the students will be able to find proofs that allow them to distinguish between right and wrong practices according to Islamic provisions. This in turn increases the students’ faith. Issues are resolved with logic after understanding the wisdom behind the right practices. This enhances the connection between Allah and Muslims (in this case, the students).

8.3 Discussion of the Benefits of PBL in Bahraini Context

The aim of the third research question was to identify and evaluate whether PBL can be integrated into IE in KB. The particular benefits investigated are categorised as knowledge, skills and attitudes.

Knowledge is defined here as the ability of students to create new information. Students suggested that this novel approach to learning helped them develop their knowledge by sharing

thoughts during their debates and by increasing their consciousness of social issues. This is similar to the findings in the literature, which suggest that debating issues and providing an explanation to others enhances the learning process for all participants in the class whilst pushing them to be receptive to the beliefs and arguments of colleagues (Bessant et al., 2013). Bessant et al. (2013) also propose that developing evaluative methods of problem solving in terms of choices, while emphasising the application of factual experiences, real-life examples, and everyday problems, can stimulate the acquisition of skills and knowledge.

In the same line, the post-PBL questionnaire demonstrates that the practice “I exchange views and ideas about lessons” with a mean 4.50 always occurred, which indicates that PBL developed the exchanging of beliefs about the materials provided for the purposes of studying the subject at hand. It is evident in the qualitative data that thinking critically about the issues set before them combined with the application of prior experiences and the learning materials, led to an improvement in learning information. The practices “I connect the learning material with real situations” with a mean of 4.27 and “I learn through the analysing and understanding processes” with a mean of 3.98. These statistics demonstrated that debating an exercise using team work stimulated information acquired through previous experiences. Here, it is developed so as to collectively formulate a potential explanation of the problems. The mental processes developed through such behaviour increases the degree and the depth to which the new knowledge is assimilated.

It is evident from this study that the PBL module facilitated active participation when the students used their previous experiences for solving problems and applied them to new issues. As such, it was useful in uncovering the capabilities of each learner. This is evidenced in a practice which often happened “I apply and use the information obtained in other real life situations” with a mean of 3.85. In addition, the results revealed that the practice “I participate in activities that help in preserving learning” with a mean of 3.80, ranked as the lowest practice, this may show that the Bahraini learners still need time in which to master problem-solving skills and apply knowledge.

Given the way in which humans think and function, it is hardly surprising that co-operative learning and the use of prior experiences are exceptionally useful ways to deal with difficulties and acquire new knowledge. Schmidt et al. (2001) argue that people desire to order the world

according to their experiences; consequently, when they encounter something new or that contradicts previous encounters, they are instinctively curious and seek to reduce the distance between knowledge and experience. As Savery and Duffy (1995) state, constructivist epistemology conceives of knowledge as something which is developed through the evaluation of social communication and the evaluation of feasibility in certain contexts. Newly acquired information should have the result of reframing our understanding of the world while driving us to develop more grounded theories for the generation of beliefs and hypotheses (Bereiter & Scardamalia, 2008). According to Jonassen (1991), a constructivist learning philosophy should emphasise the duplication of internal and external dimensions of experience in the thought processes of learners. Therefore, processes whereby other beliefs are examined and current ones are tested in relation to the situation, offer the chance to reflect on what is learned and the process of learning itself.

The second important facet of this study lies in the way in which it has located skills that can be developed through PBL. Here, SDL is a fundamental component, since it allows students to progressively advance how they regulate the ways in which they learn. As this research suggests, Bahraini students learn by depending on their own resources when the PBL approach is deployed: they create arguments that rest on a solid basis of analytical investigation where they learn how SDL can be conducted. The practice “I conclude and obtain information by myself” always happened with a mean of 4.34; the post-questionnaire shows that PBL allowed students to work more independently when it came to discovering evidence and formulating conclusions. Such experience will hopefully encourage them to be more independent outside the classroom and not always turn to the judicial system to solve their problems for them. This outcome met the MoE’s goals for secondary education (2008) by encouraging freedom of thought and the skill of rational decision-making when encountering challenges. This finding is in line with Islamic views, as Ibn Qayyim al-Jawziyyah (1985) states, Islam demands that people develop their mental capabilities so as to better comprehend their religion.

The finding of this research on the results of SDL within a PBL approach corresponds with those found by other scholars. PBL enables a greater degree of independence during students’ learning and working lives (Anthony & Abdul Kadir, 2012b). Boghossian (2006) notes that this is fully

matches the idea behind constructivist theories, which state that learners turn their subjective experiences into knowledge.

Schmidt et al., (2011) and Smith et al. (1995) demonstrated that those learners partaking in a PBL course tend to be more active users of libraries than conventional learners. This fact backs the argument that those subscribed to a PBL approach tend to be more self-reliant when it comes to learning and have no problems with being accountable for the progress of their learning. In contrast, the results offered by this study suggest that a PBL module facilitates critical thinking and considering an issue from multiple viewpoints, a fact that drives students to hold themselves to account when it comes to decision-making and planning for the after-effects of choices.

Another type of responsibility revealed by this study is that students will take on the responsibility to participate in group work within a PBL environment. This is due to the fact that the approach facilitates co-operative action and the development of the mutual exchange of knowledge, thoughts, experiences, and materials. Interesting findings from the post-questionnaire show that the practice “I learn through groups that help me learn” always occurred with a mean of 4.52, ranked as the highest practice. These findings from mixed data are backed by the literature, which emphases that small group work encourages knowledge assimilation (Smith et al., 1995), and encourages socialising and thereby diminishes failure rates (Schmidt et al., 2011). PBL may therefore be designed as a socially constructed pedagogical method as it ensures that all learners co-operate in the mutual formation of information (Abdul Razzak 2012; Bessant et al., 2013). As pioneers of constructivism like Savery and Duffy (1995) and Hartle et al. (2012) declare, co-operative groups of learners are advantageous in that they allow for the assessment of a learner’s comprehension whilst simultaneously using contributions from other people in order to further develop, combine, and expand how challenges or subjects are understood.

The third kind of responsibility revealed by this study is that PBL enabled Bahraini students to become effective members of their community by articulating solutions and perspectives in order to solve a particular difficulty or situation. In Islam, it is notable that the Hadith mentions in section (2.5.3) that each individual is responsible for their fellow community members, which corresponds with the responsibility that can be inculcated by PBL.

Another skill found in this study is confidence. Bahraini students can develop their self-confidence when they are capable of backing their viewpoints with evidence, even if they encounter those with conflicting perspectives. This promotes a student's ability to select evidence and evaluate it critically so that the most appropriate can be selected in order to help an argument succeed. This increases the ability of students to sway others to their side. Such confidence is what may be expected when taking a student-centred approach to PBL as opposed to a teacher-centred one. Expressing ideas to one another in a group work setting allowed students to find ways to make their perspectives comprehensible to other participants. Group tasks thus encouraged mutual planning and sharing, which in turn enhanced knowledge, generated confidence, and developed their ability to deal with future tasks.

Such a result demonstrates that researchers have come to similar conclusions when discussing the role of confidence development through the PBL approach. Bessant et al. (2013) and Antony and Abdul Kadir (2012b) have noted that self-confidence can be developed through making both individual and collective presentations to the entire class and by encouraging a greater degree of interaction among students: developing the ways in which student express their views is therefore at the heart of PBL.

The final skill in this research is critical thinking in the Bahraini context. Critical thinking constitutes of students reflecting on their actions and learning through dialogue with others in the classroom. This corresponds with the Islamic notion that the Quran invites the faithful to examine the world around them and to approach environments critically Diyab & Orquz, 2000).As it mentioned in Quran "We will show them Our signs in the horizons and within themselves until it becomes clear to them that it is the truth. But is it not sufficient concerning your Lord that He is, over all things, a Witness?" (Quran 41:53).Consequently, this finding became a form of enhancing learning, as QAA (2014) reported and as it mentioned before in chapter two, this is currently absent in Bahraini education. What is more, scholars are in general agreement that the goal of PBL is to allow people to think originally and offer innovative resolutions to questions (White, 1996; Duch et al., 2001; Closson; 2011; and Bessant et al., 2013). Equally, this matches Savery and Duffy's (1995) assertion that constructivism stresses the need to facilitate comparisons between ideas, and self-reflection during the process of learning.

The third PBL benefit is: attitudes towards PBL design, strengthening social relationships and increasing of faith. Bahraini learners evinced higher levels of communication and thus were able to find out more about their classmates. The relationship between the teachers and the learners was enhanced both within the educational setting and outside it. PBL therefore created a way in which friendship could be developed among learners and facilitated teacher-learner links due to the limited number of students per group. As Ernest (2006) proposes, this corresponds with the basic ideas of constructivism, by taking into consideration social interaction in the creation of knowledge through processes of negotiation, co-operation, and debating between teachers and students. Constructivism also emphasises the importance of note taking, materials, and forms of communication in the learning process. Equally, the MoE's 2008 objectives were met, since this goal insists that students should have the opportunity to work together.

These results seem to be consistent with other research (Antony & Abdul Kadir, 2012b and Imafuku et al., 2014), while students had problems coping with PBL at first, they became accustomed to it and soon found it enjoyable. This motivated the learners to participate in collective work and to interact with their classmates. This allowed students to keep in touch with each other and allowed the teacher to closely supervise their progress (Schmidt et al., 2011). However, it should be noted that other studies have found that the nature of the bonds built between students can vary depending on the environment, as Bessant et al. (2013) found when studying three different universities; in this context, the relationship can affect the functionality of group work differently. One interesting finding in my study shows that with mean 4.52 students in the post-questionnaire always learned through group work during PBL. This is also evident in Bessant et al.'s (2013) finding that 80 per cent of learners found group activities to be stimulating and useful.

The increased faith finding emerged in this study due to the nature of this research which focuses on Islamic studies where increasing faith is a specific MoE learning outcome for IE. Learners demonstrated that they felt spiritually enriched by uncovering evidence in holy texts that was relevant to their daily activities and this in turn increased the connection between them and Allah. This is evident in the survey where the practice "I know the real reasons behind the Islamic verdict" always happened with a mean of 4.20. The explanation of this result is that the comprehension of and reflection on the sources of Islam played a role in increasing students'

faith. Solomon (1998) has suggested that the consequence of the way in which problem-solving exercises places learners at the heart of the teaching process, leading to better understanding of worship.

8.4The Challenges of PBL in a Bahraini Context in IE

The practical challenges associated with PBL in Bahraini context in IE which might not help students to learn effectively are: unwillingness to accept a change by students, limited time to complete a task, insufficient study data in the textbook "The norms and provisions of the family in Islam (201)" in IE and the guidelines of the PBL process used to apply the PBL module in the classroom.

8.4.1 Students' Unwillingness to Accept Change

The research revealed that one of the challenges of employing the PBL approach was Bahraini students' unwillingness to accept change in school. This was due to the fact that the students were accustomed to a specific teaching method: a "teacher centred approach". Changing the role of the students to a "student centred approach" had a negative impact on students' studying habits. Sarah, a student, stated:

> "At first, I would say that I complained about the new module. I faced some difficulties. I used to study our lessons in the traditional method. When I was taking the course on the new module, I was confused, but after some time we adapted to it." (Interview 2 line 26-29)

Qamar, a student, had concerns about making judgments, so she commented:

> "It felt good, especially when my friend and I managed to solve the problems. But in the beginning I felt puzzled and feared that I may not be fair towards anybody. But later, it became an excellent feeling." (Interview 10 line 75-77)

These responses demonstrate that the students were willing to improve themselves. However, many of students were unhappy with the new module due to their existing comfort with the conventional approaches to instruction. The students were uncertain of how to resolve the issues

and there was concern among students that the new approach would not allow them to provide appropriate solutions.

On the other hand, further analysis showed that students who were used to being "spoon fed" accepted this new approach, and applying the PBL module continuously gave them the opportunity to deal with the challenges presented by this new method of learning. The comments below illustrate how students managed this challenge.

Student Auhad pointed out:

> "The difficulty I faced was that it was new for me. It was a qualitative change from the traditional method of questions and answers to a new method of solving problems by myself. I can say that I didn't accept this in the beginning, in fact I rejected it totally because the difficulties were in the beginning, but when I had started and had practiced, I really liked it." (Interview 3 line 35-39)

This view was echoed by another student, Samah, who expressed interest in PBL:

> "When you first came to us and explained the idea of PBL, I felt so excited that I went home and told my family about the program which was going to be applied at school. Yet I didn't imagine how we would start it. I felt I was not benefitting from this approach and that was the most annoying thing for me in the beginning. However, when I began to use the steps it started to seem clearer and I felt better." (Interview 3 line 19-23)

Shamma, a student, reports on how she coped with the challenge:

> "I did not know how to deal with the problem solving process, but later I could extract the clues, the characters and the solutions. I learned how to support our ideas with proof." (Interview 16 line 25-27)

Jamila, a teacher also claimed:

> "The challenge arose because it was a new module being applied in the school. It was natural to be opposed to it in the beginning, especially within the Islamic Education system, which depends on memorisation, while learning with this new method depends on students' ability to think and provoke their mental activity. After they engaged in the activities, they liked it and it became a normal process." (Interview 20 line 37-42)

To sum up, being patient with the students and continuing to employ the PBL approach overcame the pedagogical challenge of students' acceptance. This notion is supported by their teachers, who are now assigned a new role in Bahraini schools with the adoption of the PBL method.

8.4.2 Limited Time to Complete a Task

Numerous studies on PBL modules have concluded that time is a challenge. According to Smith et al (1995), employing PBL in the learning process is time consuming and thus more effort and skill from teachers is required, which takes away from their conventional teaching roles. Designing the curriculum in KB is the responsibility of the MoE. Therefore, teachers are not obliged to formulate the guidelines of the PBL process. The study revealed that discussing and solving a problem in IE requires ample time and practice.

Manal, a student, stated that time shortages were a challenge for PBL:

> "I enjoyed solving the problems and I never felt bored, but I can say that I faced difficulties as there was not enough time to complete the research and find the proof, nor even the discussion to find the appropriate solution for this problem. The time was not sufficient and thus some tasks couldn't be achieved, as we needed to discuss more proofs. Therefore, time limits were one of the most notable challenges within the PBL system." (Interview 7 line 27-31)

Respondents were asked if they stopped discussing the problem by the end of the class. Amena, a student, reported that:

> "No, we sometimes continued discussing some important issues outside the class, as the class time was not enough." (Interview 19 line 70-71)

Both teachers claimed that employing PBL was time consuming, Jamila said that:

> "The problem has to be solved within the time planned. The lesson is only 60 minutes. If I divided this time between understanding the problem, conducting the discussion and searching for proofs, then the students would not have enough time to complete the tasks. This is all despite the fact that the students became quicker in doing the activities since they learnt the skills and that could be considered one of the advantages in the new approach." (Interview 20 line 81-86)

On this point, Sarah, a student, alluded to the idea that mastering the skill takes time:

> "I enjoyed solving the problems and I never felt bored, but I can say that we faced difficulties the first time. In the first task we dealt with, we spent too much time discussing and finding suitable solutions, but then, in the fourth task, we spent less time on the problem. The second task took us only 27 minutes to solve, instead of 45 minutes, like with the first task." (Interview 2 line 36-40)

Employing PBL when solving the problems required different skills to achieve appropriate solutions. Analysing a problem, discussing and searching for the proof may take considerable time. Bahraini students have not yet achieved these skills due to the limited period in which the PBL module has been applied. Mastering problem solving process needs more time and practice.

8.4.3 Insufficient Study Data in the Textbook

Another challenge to the application of the PBL system in Bahraini schools, revealed in this research, was that the resources in the IE textbooks used by students lacked the necessary information. The majority of those who responded to this item felt that there was insufficient data in the textbook. Marah, a student, reported:

> "There was not enough evidence within the IE textbook to solve a problem at hand. This meant that the problems required further proof to support our answers. Sometimes the proof was not strong enough to resolve the problems. I was

> motivated and enthusiastic when I understood the problems and so I tried to find the solutions. However, I was less motivated when I could not find proofs that supported the solutions. Here I was, stranded and helpless, I did not have enough proofs and so this made me disappointed." (Interview 6 line 522-528)

Teacher May expressed her agreement with the students' claims:

> "Firstly, the text book was not adequately reviewed by the MoE; there were a number of mistakes that needed to be rectified. Secondly, there were unnecessary details written in the textbook. Thirdly, the proofs required to solve the problems, were not stated in the text book. Fourth, the evaluation questions are based on students' memorisation and did not measure the students' analytical thinking abilities." (Interview 21 line 253-257)

Curriculum specialists supported the students' and teachers' statements mentioned above. Suha, a curriculum specialist, pointed out:

> "I agree that there were other proofs the book did not mention and this was one of the book's disadvantages. We, as a department, need to modify or change our recent approach and contents." (Interview 23 line 194-196)

To fulfil the objectives of PBL, the textbook needs to be improved. The curriculum needs to be altered to give the students the required proofs to resolve the problems. Muslims scholars' arguments should be mentioned in the textbook to support the students in their understanding of the topics. Thus, for PBL to be effective, students need to be able to access the information they need to help them to solve the problem

8.4.4 The "Guidelines of the Process of the PBL Module" Used for Applying PBL in the Classroom

During the research, a "Guidelines of the process of the PBL module" worksheet was designed to provide students with a guideline for the process of working out solutions for specific problems. The students needed to complete the stages provided in the worksheet to gain a fuller picture of the activity. The solution to a problem given in the classroom was reached through students'

discussions and then recorded on the worksheets gradually to complete the process step by step. When the participants were asked about the worksheet, the majority commented that it was hampering the PBL process. Nauf, a student, pointed out that:

> “I felt that following the instructions to solve the problem became a little boring. A large quantity of writing was one of the challenges the group and I encountered, as suggested by the PBL module. If you simply gave the problem and then let the group solve it, it was much better. Frankly, the new generation does not like to follow instructions in their work and I like to have more freedom in my work; I don’t like to feel that I am controlled. Everything can be discussed orally, I can learn it when it is repeated more than once and I can remember some of it, while my classmates can remember the rest.” (Interview 4 line 42-49)

Jamila, a teacher, claimed that using this particular type of "Guidelines of the process of the PBL module" in the students’ activities was challenging.

> “I would like to say something concerning the worksheet presented; I think that it needed to be produced in a different way to create enjoyment. The paper could be designed to contain more attractive items and the titles were not well organised in the tables. It can put the instructions in a small box in the top of the page and the rest of the page could be left for the students to do during the activity. By the end, I thought it was a useful method and it did benefit the students. This current worksheet restricted the students from moving on with the task.” (Interview 20 line 98-104)

In addition, there were some suggestions about the organisation of the "Guidelines of the process of the PBL module". Munera, a student, suggested:

> “Really, the hand outs were so boring because they contained only writing. It should include photos, drawings or whatever else to attract the learner’s attention. For example, watching videos would help. It is boring to read all the time but watching videos is more interesting and I feel excited with videos.” (Interview 13 line 337-340)

I asked Munera if it's also boring to watch videos all the time. She responded:

> "No, because watching videos are different and each problem has a special video. So there is no chance of getting bored." (Interview 13 line 290-291)

The suggested PBL approach found that giving the students a planned procedure had a negative impact on students' autonomy. The students complained about the "Guidelines of the process of the PBL module" as they were boring and contained a large amount of writing. The students disliked writing notes, especially in this particular subject, as they were enjoying discussions and engaging with other students. Moreover, they were unhappy with the content of the tables as it limited their ability to continue discussing the problem. The aim of formulating the guidelines is to help students remove or at least lessen possible confusion while they retain an element of creativity. However, students rejected the guidelines which indicated the success of PBL as students was finding their own autonomy in their learning.

8.5 The Discussion of the Challenges of PBL in Bahraini Context

The analysis of data indicates that the big issue for the Bahraini students, when using the PBL module, is adapting to changes. At the beginning of the PBL module phase, the students were excited. The majority of students joined in with a discussion and seemed to have fun. However, then as time went on, issues relating to old 'spoon feeding' methods were raised and tackled. Later, it was clear that teachers had motivated their students to embrace the PBL module. Another challenge is limited time in which to complete a task; it could be argued that practicing the PBL process plays a role in reducing this challenge.

The altering of the students' attitude has been covered in similar research, such as Smith et al (1995), Samsonov et al (2006), Antony and Abdul Kadir (2012a), Li, (2012) and Imafuku et al (2014), which all supported the idea that students are unwilling to adapt to change initially, yet as the class makes progress, most students adjust to the new style of studying and start to enjoy the lessons. It is evident that there are differences between my research and that of Antony and Abdul Kadir (2012a). In my research, a teacher motivated the students to progress with a new module, while Antony and Abdul Kadir cite implementation challenges and outline the necessity of accustoming students to the new method well ahead of time, illustrating how the PBL system

can progress their skills in terms of teamwork. The research subjects went through two weeks of practice to get accustomed to their new roles as students who collaborate. Current research pinpoints the position of the teacher as vital for motivating students to adapt to the PBL system, in the same line, White (1996) found potential issues with his research, in that teachers needed to familiarise themselves with entirely new systems of instruction and thus their teaching abilities could suffer, especially when students were not paying full attention in lessons.

Furthermore, Smith et al (1995), Antony and Abdul Kadir (2012b), Li, (2012) and Imafuku et al (2014) found that teachers also found it difficult to work with a different system as it contradicted many fundamental aspects of teaching theory that they had learned. Even though this research shows that the teacher is key to motivating students to incorporate the new system, this relies heavily on the MoE, where the student is made centre of the learning process and the teacher is not.

The additional challenge is the limited time available to complete the task; this result is consistent with data obtained in several other studies which address the time required for PBL to achieve maximum effectiveness (Smith et al. 1995; Closson, 2011). Nevertheless, Owens et al (2010) outlined how their team made good time because each member of medicine practitioners worked on the professional development programmes of continuing education, which were clear and concise because people from within the healthcare industry had already assessed the issues. This research proves that another way to eliminate the time problem is becoming well acquainted with PBL processes. However, students in this study were particularly slow because the PBL model was so new to them and to their teachers; this will speed up with practice. On the other hand, if the problems are too complex and numerous for the time allocated; the potential solution is that students need to have the details of the problem prior to the lesson so they can begin their independent research and come to class prepared for discussion.

The second difficultly linked to PBL were practical issues which arose in Bahraini schools in IE, due to the different contextual nature of this specific study. A problem that arose from this research was the insufficient information in the IE textbook. This finding is the responsibility of education policy makers in KB, one could suggest that all participators in the PBL module (students, teacher and curriculum experts) should collaborate to design PBL module. Furthermore, giving students further amenities like internet access in lessons and more books

would be beneficial so they could have more information as needed. In my research, the only resource available to students is the textbook.

Another practical difficulty is the layout of the "Guidelines of the process of the PBL module" that are used to employ the IE PBL module in lessons included a time schedule, which reduced students' overall freedom, leaving them dissatisfied with the lack of time available to further discuss the questions, the hand out's designed was influenced by my reading and analysis of PBL models; and I would design it differently next time or simply not provide a hand-out and let students get on with the PBL task in their own way, depending on students' opinions. Samsonov et al (2006) found similar results in their study, showing that boredom was a big issue for most students, this was a result of confusion and their struggle to deal with non-structured classes and receiving too much data at once.

The students in this research have exercised their right of having a say in their own work. Students created new concepts for the layout through highlighting words and labelling them negative, positive and interesting, instead of repeating them again in the table. A few students did drawing as a basic plotting exercise. On top of this, they substituted the words 'victimiser' and 'victim' from the worksheets with 'plaintiff' and 'complainant'. By the time the students in this research had achieved the PBL method's objectives, ensuring a more concrete knowledge of underlying methods and tools (Schmidt and Most, 2008). However, students did not like the worksheet, does not mean that it did not fulfil the criteria of helping students follow each step. Thus, the current research back up the findings of Delise (1997), who argued that a meticulously laid out plan made sure students would not get stuck or skip crucial steps before covering the basics.

At the end, in the analysis of the third question, this study has demonstrated the skills and behaviours of Bahraini students can be considerably affected by the PBL approach, since this can fundamentally alter the ways in which learners create knowledge and the atmosphere in which learning takes place. Although there may be various difficulties in implementing PBL in Bahrain, it is advisable that the educational system there considers its implementation.

Ultimately, this research aimed to assess the IE PBL module in KB and did not aim to assess students' academic achievement and the personality skills of Bahraini student. The results in this

study show that Bahraini students have developed their knowledge and possess a number of skills which need to be assessed through a systematic assessment approach where standardised tests applied by the MoE currently focus on content only, and are not fit to assess individual students in PBL.

8.6 Final Discussions

The purpose of this research is to examine the integration of PBL in IE in KB. In terms of the objectives set out in the first research question, it has been shown that PBL assists in accomplishing these objectives. This section discuses quantitative data in the form of comparisons between the questionnaires the students completed prior to and following the implementation of the PBL module to find out to what extent PBL plays a role in achieving Bahraini students' desires, while the students' self-evaluation form was devised to support the questionnaire data, qualitative data is used complementarily to create a clear picture of the final findings.

The pre- and post-questionnaires allowed me to see how the introduction of PBL impacted upon the study of IE in a Bahraini school. To find out the significance of PBL "The Wilcoxon signed Ranks Test" was used to verify the significance of the difference between the practices from 1 to 8 in the pre- and post-questioners in section one as shown in the table below:

Phrases	Median pre	Median post	Z	Asymp. Sig. (2-tailed)
1. The teaching and learning process of Islamic Education aims at memorizing the material for the exam only.	3.00	3.00	-3.320	.001
2. The teaching methods of Islamic Education give you the opportunity to obtain a deep understanding of the Qur'anic Verses and the Sunna texts.	3.00	4.00	-4.509	.000
3. The schoolbook activities help students to learn.	2.00	3.00	-4.265	.000
4. Teaching and learning by heart (memorizing the material) plays a significant role in the current teaching and learning process.	4.50	3.00	-5.899	.000
5. The current methods of teaching help you solve your daily problems.	2.00	4.00	-6.157	.000
6. The teacher accepts all answers from her students.	3.00	5.00	-7.317	.000
7. The teacher asks her students to provide evidences to support their answers.	3.00	5.00	-8.373	.000
8. The teacher asks her students to clarify and analyse their answers.	3.00	5.00	-7.617	.000

Table (15) "Wilcoxon signed Ranks Test" of the practices that occurred in Islamic Education course in before and after applying PBL

It is clear that from the table above that the phrases in the post-questionnaire show a higher median than the pre-questionnaire, in particular, phrases 6, 7 and 8. It is clear from the table above that there are significant differences in the eight practices, since their significant values are less than 0.01, indicting the improvement in the result in the post- compared with the pre-questionnaire.

In the second section, another comparison was conducted to find out how PBL achieves students desires by comparing the mean value of the students' desire to learn in IE before introducing PBL and after applying PBL in eight practices from 9a to 16a.

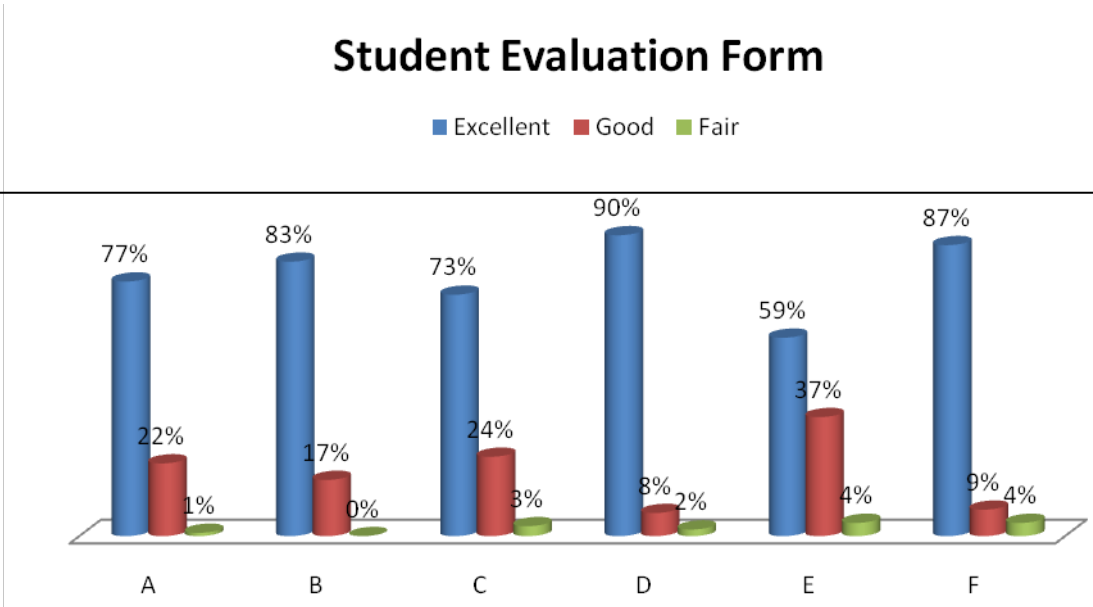
The table (16) shows the practices of teaching and learning that are desired in IE and achieved through PBL from the students' perspectives in pre- and post-questionnaires.

Items	Pre Test		Post Test	
	Mean	Std. Deviation	Mean	Std. Deviation
9. I apply and use the information obtained in other real life situations.	4.39	1.03	3.85	1.03
10. I learn through the analysing and understanding process of the lessons.	4.40	.82	3.98	1.05
11. I participate in activities that help in preserving learning.	3.93	1.22	3.80	.95
12. I exchange views and ideas about lessons.	4.30	.94	4.50	.77
13. I conclude and obtain information by myself.	3.98	.92	4.34	.74
14. I connect the learning material with real situations	4.27	1.01	4.27	.85
15. I understand the real reasons behind the Islamic verdict.	4.31	1.08	4.20	.89
16. I learn through groups that help me learn.	3.62	1.22	4.52	.94

Table (16) The learning practices of students' in IE in pre- and post-questionnaire

The self-evaluation form, filled in by students at the end of the course provides further numerical data. It is used to encourage self-reflection among the students about their experiences and performance during the course.

Figure (9) demonstrates students' evaluation results, which are divided into three scales: excellent, good, and fair.



A- I contributed ideas/ facts.

B- I came up with some learning issues.

C- I used the sources of Islam when solving the problems.

D- I helped to think through the problem.

E- I contributed new information.

F- I helped my group in doing its work.

Figure (9) Student self-evaluation form (Adopted from Delise, (1997) with one amendment "c" structured by the Islamic)

Figure (9) demonstrates that in answering to the question 'do you desire to learn through groups which help you learn?' in the pre-questionnaire, this practice preferred often by students with a mean of 3.62. The question was modified in the post-questionnaire to 'does learning through groups in PBL help you learn?' this practice happened always with a mean 4.52, which showed that this practice was evaluated by participants positively. Thus, PBL did indeed have an effect on positive responses to team work; where students who applied this practice developed from often to always, it helped them learn. The evaluation forms backed this, since 87% of the

students rated themselves ‘excellent’ in the role of “I helped my group in doing its work” while 9% of the students ranked themselves ‘good’.

These quantitative results are backed by the qualitative analysis proffered previously in the research. The qualitative data found that the learners in the study enhanced their independent study skills during group work. PBL offers the potential to stimulate students to participate in the completion of assigned work whilst also strengthening social bonds between group members. This in turn means that communication skills were developed and students became better acquainted with each other. Both types of data provided in this study back the notion that small groups and a student-based approach to learning generate greater chances for collaboration in the performance of tasks. This may allow PBL to remedy some of the failures of the KB educational system as discussed in QAA (2014). It has been noted by QAA that the teacher is the only source of knowledge. PBL can rectify this situation by creating knowledge among the students through the exchanging of perspectives and the expression of opinions. This was one of the objectives of this research.

What is interesting in this data is that in the pre-questionnaire the practice “I exchange views and ideas about our lessons.” occurred with a mean of 4.30, and with a mean of 4.50 in the post-questionnaire which indicates that this practice increased, thereby demonstrating that Bahraini learners are certainly interested in exploiting the opportunities offered by PBL for discussion and debate. Further analysis showed that it is apparent from table (16) that there is an increase in the practice of students obtaining information by themselves with a mean of 3.98 in the pre-questionnaire, and with a mean of 4.34 in the post-questionnaire. This is supported by the self-evaluation forms where 77% of participants ranked their ‘contribution of ideas/facts’ as excellent and 22% as good. Equally, the section ‘contribution of new information’ was considered excellent by 59% of the students and good by 37%. A possible explanation for this might be that Bahraini students are able to be responsible for their learning during PBL activities.

These results correspond with the qualitative analysis of the sample, which found that the students believed that PBL increased their levels of self-confidence whilst allowing them to express themselves better. The teacher as a facilitator was able to stimulate students into freely discussing their ideas and respecting the opinions of others. PBL also puts the students at the centre of their learning experience, so they have more of an influence on how it is conducted. In

sum, this matches the objectives for PBL, which stipulates that students should obtain learning skills through PBL as opposed to rote learning.

In both the pre- and post-questionnaire, students stated that it was useful to “connect the learning material with real situations” with a mean of 4.27. This may be because PBL utilises cases taken directly from the Bahraini court system in order to show how Islamic law works. The qualitative information from the study also showed that tackling daily issues helped the learners to develop a more analytical thinking process.

According to table (16), in the pre-questionnaire students stated that they desired to “understand the reason behind Islamic verdicts” with a mean of 4.31 while, the post-questionnaire found that students believed that PBL help them to “understand the reason behind Islamic verdicts” with a mean of 4.20. On the other hand, in students’ self-evaluation forms, 73% ranked themselves as ‘excellent’ in “used the sources of Islam when solving the problems” which is a significant number despite the limit of time in applying the PBL and the lack of data in their textbook. These findings are consistent with data obtained from interviews that shows Bahraini students stress that within PBL they had a deep understanding of their religion, rather than simply memorizing knowledge. This result shows that Bahraini students need to understand Islamic judgments. However, students need more practice in applying the PBL module in their lessons and need to have more Islamic evidence in their textbook which is considered one of the challenges which found in this study.

Further analysis shows that students wanted to “learn through the analysing and understanding process” with a mean of 4.40 in the pre-questionnaire: this had declined to 3.98 after PBL was implemented. This may be due to the fact that the learners under study still needed to spend more time analysing and understanding the learning processes. However, a mean of 3.98 (often happened) is still significant, a substantial accomplishment given the time scale involved. In the same range in the student-self-evaluation form, 83% of students classified themselves ‘excellent’ in the role of “I came up with some learning issues” and 90% of students categorized themselves ‘excellent’ in the role of “I helped to think through the problem”. These two kinds of quantitative data correlate with that provided from the qualitative investigation, whereby it was shown that students flourished when using independent learning in order to make arguments and find conclusions. This meets the PBL goal, since it demonstrates an increased level of student-

focussed learning where they actively embrace self-reliance in their learning rather than passivity.

At the end of the integration between quantitative and qualitative, the lowest practice in the post-questionnaire was “participate in activities that help in preserving learning” with a mean of 3.80 and with a mean 3.93 in the pre-questionnaire. The second lowest practice in the post-questionnaire is “apply and use the information obtained in other real life situations” with a mean of 3.85 and with a mean of 4.39 in the pre-questionnaire. This could be explained as a consequence of the relatively short span of time given for students to apply their knowledge in future situations. Nonetheless, it is clear that the figures demonstrated by the post-questionnaire in both cases are considerable, which makes it possible to argue that PBL did have an impact on life beyond the educational environment. This is evident in the qualitative data; some student interviewees were able to give examples of using PBL in the real world during the seven weeks when the research was implemented.

To sum up, this study revealed that PBL module facilitated active participation when students use their previous experiences to solve problems and applied them to current problems. Another essential facet of this study lies in the way it has located skills that can be developed through PBL. For instance, PBL module facilitates critical thinking and considering an issue “problem” from multiple points of view. In other words, as students appeared to be motivated and encouraged to perceive the issue at hand, identify the cause of the problem objectively, and then gather evidence before determining the appropriate solution, this demonstrated the skills acquired by students to think critically and refer to the Quran and Sunnah as primary resources in considering all possible solutions to the problem before making a final decision; creating knowledge. In this regard, the self-evaluation forms revealed that about 59% of students considered 'contribution of new information' as excellent and 37% as good, and 73% as excellent in 'used the sources of Islam when solving the problems'. All that show how students are keen to be responsible about their learning process. This study highlighted the responsibility students take to participate in team work and consider it as an effective key to exchanging knowledge among learners and they are more engaged with the process and collaborate as a team. Furthermore, self-confidence is another skill to be developed when seeing students capable of backing their viewpoints with evidence. Expressing idea to one another in team work setting

allowed students to find way to make their perspectives comprehensible to other students. All that suggest how effective and successful PBL could be in IE in KB. These results correspond with a study was conducted by Kassab et al., (2005b) at the Arabian Gulf University in Bahrain where students of Medicine were provided with a chance to perform the role of teachers and employ the PBL strategies. This study revealed that those students' whom the majority of them was Bahraini, showed high capabilities in their cognitive practices, their proactive performances were even better than the faculty teachers as well as the feedback they provided alongside with their peers within the tutorial time. Bahraini students, however, in such a student-led context reflected remarkable abilities of demonstrating a number of points such as; the key leadership attributes and efficiency, communication interpersonal abilities, evaluation, teamwork, and reflective skills. Although, current study indicated some challenges associated with the implementation of PBL, it is advisable that the educational system there considers its implementation.

Chapter Nine
Conclusions and Recommendations

9.1 Introduction

The purpose of this chapter of the thesis is to answer the three research questions of the investigation. It begins by reemphasizing the research objectives, and then reviewing the chief findings, while finally proposing several recommendations. This study investigated how PBL integrates into IE in secondary schools in KB. In order to do this, I felt that I had to undertake a study of the currently existing teaching methods for Islamic Education in my case-study school in KB, so as to understand the delivery process and its impact on self-learning skills, then devise a module based on PBL to help students to develop their self-learning skills in order to solve problems within the Islamic faith, and practices for Islamic education. Through those aims I wanted to achieve the main purpose of this study, which is to know whether or not PBL works within the context of the formal IE curriculum in KB.

As discussed in the introduction, the MoE in KB is interested in developing the process of education, and focusing on thinking skills and self-directed learning, with the objective of improving students' abilities to express their views and solve problems. In addition, from an Islamic viewpoint, it is very important to educate Muslims on how to make informed and independent decisions without departing from the principles of the Holy Quran and the Sunnah. The aim of the PBL module is to assist students in developing a more in-depth understanding of a problem as well as its underlying causes and effects. Therefore, one objective of IE in KB is to ingrain the principle of self-learning that is associated with the Islamic sciences, In this regard, Schmidt and Moust. (2008) argued that students who were more familiar with PBL typically demonstrated a higher level of cognitive skill and a more advanced ability to study independently. The constructivism is compatible with PBL and IE, and applicable in this study, but there is tension between ontological absolutism and the personal relativism inherent in constructivist learning theories.

A case-study strategy and mixed methods approach was employed to gather qualitative data via class observations and semi-structured interviews with teachers, students and curriculum specialist in the MoE, and quantitative data via two questionnaires and student self–evaluation forms which were completed by students. Using mixed methods has allowed me to create a clear picture of the topic as well as increasing the research validity and reliability, because it has enabled me to answer questions which are difficult to answer when using one method only. In other words, the use of mixed methods reflects how the qualitative and quantitative approaches complement each other through the use of different sets of data collection. For instance, the use of observation and interview allowed me to gather in-depth data, which would not have been possible to get through the use of other techniques such as questionnaires. The data collection stage began by using the pre-unstructured observation technique in order to evaluate the manner in which a teacher conveys knowledge and the students' aptitudes. Then, a pre-questionnaire with two sections was given to the students aiming to investigate: Firstly, to what extent certain practices were incorporated in teaching and learning methods within the Islamic education context, and secondly, to what extent students wished to become familiar with those practices implemented in Islamic education? Semi-structured observation was adopted to see how the teacher delivered the PBL module and how the students responded and applied the PBL. Then, the post-questionnaire was conducted to evaluate the PBL implementation in the Islamic education context. Finally, interviews were conducted to gather information from students regarding how they felt about PBL. Interviews with teachers and curriculum specialists regarding their viewpoints on PBL were also conducted. Those stages of data collection helped me to gain rich data which in turn helped to answer all of the research questions and increased the research findings' validity and reliability. The scale of the research means reliability is limited; however as the case-study school is typical of its type the findings may be generalizable to similar contexts.

9.2 Conclusion of the Research Results

The first research question to address is how do conventional pedagogies in IE in a Bahrain girls' secondary school impact on students' learning experiences? In response to this question, the findings demonstrate that the conventional pedagogies of the existing curriculum and teaching

strategies are based on the students using rote learning and memorization in order to absorb knowledge and information. Furthermore, the research revealed that there are very few opportunities for students to participate in group work and its associated activities such as the sharing, discussing, and exchanging of opinions. In addition to this, typically teachers did not give students the chance to express their own viewpoints. As a consequence, this form of teaching meant that students simply accepted the teachings without the opportunity to question, discuss, or assess any aspect of them. Therefore, it can be stated that this type of learning environment does not encourage students' critical thinking. I observed that critical thinking and group work were present, but poorly conceived and executed. Essentially, learning through exploration and discovery is not presently a realistic option for students in the theory and practice of Islamic Education in the case-study school.

I was impelled by a MoE document published in 2011 in the KB in which the MoE supported and encouraged a number of teaching practices, which included: higher levels of interaction between students and teachers, greater collaboration and co-operation amongst students, more discussion and debate during lessons, an increase in students' critical thinking, and applying previous teachings and experiences to new ideas, topics, or problems. However, at the same time, the MoE warned that teachers must be capable of maintaining order during any discussions, and should propose different opinions to the students so as to stimulate debate. The recommendations of this MoE document MoE document inspired me to trial the PBL module. As a pedagogical method, PBL teaches the students how to obtain knowledge by themselves and be independent learners, rather than relying on their teachers or course textbooks. PBL allows students to learn facts and information in an effective manner, and also enables them to develop skills such as the ability to compare, evaluate and recognise differences and similarities, absorb knowledge, construct meaning, and become a positive contributor to a team. As a result, it is an important factor in the comprehension of the underlying causes of Islamic legislation and legal provision. This is acknowledged as understanding on a deeper level which involves meaning-making, understanding significance and translating knowledge from one context to another. Therefore, to explore if PBL is a significant contributor to an effective teaching and learning environment in this new context, this research examines how Bahraini students respond to PBL in the context of IE.

In order to investigate hypothesis that PBL is/isn't an appropriate pedagogy for IE in KB, the second research question is: how does the implementation of PBL work within the context of Islamic Education in a Secondary girls' school? Responding to the hypothesis behind this research question, the findings revealed that: Yes, the PBL seems to be an appropriate pedagogy to be implemented in IE in KB. To answer this question, I devised an IE module from a model in a textbook for grade 11 (Islam organises marital life), which was modelled on the principles of PBL, and implemented it across four classes in a Bahraini girls' secondary school, as explained in chapter four. The results of this intervention are discussed in detail in the thesis and summarised below.

The outcomes for this question indicate that there are four stages of the PBL process and four elements which play a vital role in the process of learning. The four stages are: Problem presentation, understanding the problem, problem analysis and discussion making. My results show these were achieved by the Bahraini students. In all four stages of the PBL process, the student is the focus of the learning process, with the teacher playing a guiding role as opposed to leading. The students' aim is to define and investigate a problem by using their existing knowledge on the topic. In doing so, they acknowledge the gaps in their knowledge and generate new ideas or search for new information. Students then conduct self-directed study to address these gaps and acquire new knowledge. They then participate in a collective class-based discussion on the topic, reflecting on what they have learned in order to solve the problem at hand. However, the findings of the research revealed that stage one "Problem presentation" allowed students to employ their vernacular during the problem presentation, which increased the extent to which they perceived the problem as realistic. In relation to stage one, stage two "understanding the problem" suggests that they will develop a diverse range of solutions if they are given control of the learning process. As for stage three "problem analysis", the findings indicate that this stage facilitates the analysis of Islamic sources in relation the problem, as well as encouraging students to exchange knowledge and determine the most ideal solution to the issue at hand. The findings in stage four "decision making" indicate that students evaluate and consider other possible solutions which in turn help them to make more effective decisions. Furthermore, the findings revealed that the IE PBL module plays a vital role in enhancing learning and challenging students' abilities and skills.

In addition, the findings of this research revealed that the implementation of the four elements (the problem, the role of the teacher, the role of the student and team work) in the IE PBL module in KB facilitated creating knowledge through student-centred learning, utilising the teacher as a facilitator, and group work where students focussed on previous knowledge and practical information, which in turn supports constructivism. This outcome can justifiably be attributed to constructivist principles, which endorse the notion that learners generate ideas and adopt a subjective approach to learning (Saven-Baden and Major, 2004). According to Dolamans and Schmidt (2008), promoting learning in a constructivist style as an active and functional process is more likely to motivate students to generate new knowledge that can then be applied in conjunction with their prior experience. In this regard, the functions of each of the four PBL elements affect the application of PBL. In short, the findings of the second research question indicate that if the four stages in the IE PBL module were effectively performed in line with the four elements, PBL could be effectively implemented within the context of Islamic Education.

To examine the successes and challenges of the PBL module in IE in a Bahraini school, the third research question is: can PBL be integrated within the current Islamic Education system in the Kingdom of Bahrain? In response to this question: Yes, PBL can be integrated in IE in KB. This thesis found that Bahraini students could participate in student-centred learning, which refers to a form of active learning in which they seek to have their own questions answered. Active, critical thinking is generated through discussions of what has been learnt. This enables students to apply their learning to real life situations, gives them the chance to correct any misunderstandings, and allows them the opportunity to evaluate the success of their learning. However, the students could not resolve every issue with their current skills in applying knowledge. They may not yet have the wisdom to distinguish between an objective problem and a discussion driven by emotion and feelings.

Furthermore, it has been shown that the PBL module promoted a deeper understanding of the sources of Islam amongst these students, which has the potential to increase faith – a principle learning objective of the IE curriculum in KB. Additionally, students benefitted from implementing PBL methods, as despite the major changes it brings, the potential for student learning is developed.

In the PBL approach, problem-solving is the main process through which students create knowledge, alongside teamwork and independent learning. Working in a group gave the Bahraini students the opportunity to play different roles, taught them different skills, and consequently allowed them to gain experience in many different roles. Cooperation within the group helped Bahraini students to generate new ideas and in turn developed knowledge; for instance through raising their awareness of problems occurring in their society as well as thinking of it in an analytical way. Sharing their opinions with members of the group and discussing the problem in detail to test the degree of individual understanding revealed compatible viewpoints and helped students to reach the final decision. This in turn developed students' self-confidence and ability to participate in their communities, be responsible and active members of society, and solve problems. Furthermore, using real life situations gives more power to the learning process and enables engagement with other members of the group. Consequently, as discussed by Knowlton (2003), carefully formulated PBL can be employed to assist teachers in guiding their students and also can assist students to pursue a high quality education. In other words, the success of applying this approach in the Bahraini context lies in the quality of the learning structure and the quality of the teacher as a highly knowledgeable and perceptive.

Moreover, PBL has contributed significantly to Islamic Education through active student engagement and emphasis on communication. The results show that the approach to education the students took was affected by their educational experiences within their primary, intermediate and secondary education involving teacher-centred learning. Despite this, the new IE PBL module altered the Bahraini students' learning method from simply gaining new knowledge, to creating knowledge by being active in their learning, which occurred through PBL. For instance, one of the PBL observed lessons concerned a wife's obligatory service to her husband; the information contained in the students' textbook indicated that it is obligatory for a wife to serve her husband in looking after the house and cooking meals. The students deduced from Quranic verse that if a married woman willingly serves her husband, Allah will reward her. This, however, was not cited in the evidence related to service contained in the textbook. This example is clear evidence of how PBL could enhance the independent proactive learning and critical thinking which leads to developing students' abilities and skills, and in turn creating knowledge.

This research suggested that learner understanding within education should be supported by activities and active practical pursuits, as opposed to just the passive ingestion of information. The Bahraini students had become used to passive learning; their reactions to student-oriented education indicated that they were experiencing an educational transition, moving from conventional passive education to more contemporary active education.

This research confronted a number of practical challenges, some of which were similar to the challenges described in the literature review. These problems were: students' reluctance to accept change and limited time to complete a task. Other challenges linked directly to the current study were insufficient study data in the textbook "The norms and provisions of the family in Islam (201)" and the IE PBL worksheets used for applying the PBL system in the classroom. Moreover, the current research did not cover the assessment of the students but focussed on assessing the IE PBL module itself. I argue that further research must assess the students using PBL, in a way which differs from standardised testing; standardised testing, which focuses on content only, is not suitable for PBL as PBL is based on skills that are emphasized by the MoE.

Ultimately, the outcomes of this research show that PBL could be integrated into IE in KB, but within certain limits as discussed earlier, due to the sample size of qualitative data. The PBL module introduced in this research could contribute to the development of education in KB in particular in the subject of 'Islam organises marital life' for female students aged 17 years. Further research needs to investigate the application of PBL to other subjects, ages and genders in IE. Although the MoE emphasized this kind of approach in their documentations, there was no practical approach applied. The MoE instructs teachers to change their method of teaching, but unfortunately there has been no attempt to introduce PBL (or something similar) to IE in KB to my knowledge.

9.3 Study Implications and Recommendations

It is important to note that the study sample was limited to seven weeks of PBL in a new module, for a single gender of year 11 in a chosen school. The case study of the school and the selected students generated a number of significant conclusions and recommendations for PBL in the

field of IE in BK. This research is significant because it responds to the MoE's goals for Bahraini Education, and because it makes a new contribution to knowledge.

Firstly, on a broad note, this study adds to the existing academic literature on PBL, and more specifically, to the academic literature on Islamic Education in KB. This research adds sufficient evidence to prove that PBL seems to be an effective method of teaching and learning within the Bahraini context. PBL has offered advantages to IE learning in KB by encouraging students to take a more independent proactive role and communicate more freely. That is, applying PBL under the umbrella of constructivism, enhanced independent thinking and knowledge creation by Bahraini learners, could in turn help them to comprehend religious resources, and boost their faith.

Moreover, changing students' attitudes towards team work from passive to positive is considered one of the contributions. That is to say, PBL did indeed have an effect on positive responses to team work; where students who applied this practice developed from 'often' response before using PBL to 'always' response after using PBL because it helped them learn.

My contribution is to highlight students' academic needs, such as critical and independent thinking, highlighted by the recent MoE policies on the existing teaching and learning of IE in secondary level education in KB. I contend that it is vital to include PBL in the IE curriculum of secondary education, as this will allow students to develop self-learning skills and a better connection to IE. Therefore, it is highly recommended that the existing textbooks, which are employed in the Secondary girls' schools in KB, are amended and updated to reflect contemporary teaching methods. A more varied range of resources, such as dictionaries and internet accesses, which are essential in developing critical thinking skills and independent learning, should also be accessible. The findings of this study provide a sample design following these suggestions.

Secondly, the findings of the study illustrate the gap between theory and reality in the teaching and learning of IE in KB. Evidence from the study depicted the students as organized learners who monitored and critically assessed their learning progress. They understood the need to become more inquisitive about creating knowledge rather than just memorizing information from the teachers or textbooks. Therefore, the MoE should examine the outcomes of this research

about PBL in other subjects in IE in KB so as to achieve the theoretical objectives of the MoE documents. Moreover, with reference to the general educational aims and objectives of KB, it could be said that PBL could offer similar success and be as applicable as in IE in other subjects. However, further studies need to be accomplished in this regard.

Thirdly, the study also provided evidence that IE in KB can benefit from implementing PBL. Due to the fact that there has previously been no research into the topic of PBL in IE in KB, it is hoped that this study will be recognised as increasing the understanding that improving cognitive complexity is beneficial to the development of students' faith. Contrary to the opinion that encouraging students' critical thinking can result in them criticizing and being sceptical of religion, it actually allows them to justify their own religious beliefs whilst being respectful of others. In this regard PBL in IE helps students to independently understand their religion as their faith emerges, rather than being receptive. For this reason, the IE subjects should obviously impart information, but more so, should encourage students' interest, participation, and evaluation.

Fourthly, a significant aspect of the study is that in regards to IE, focus should shift from teacher- and textbook-based learning to student-centred learning. This is because teacher- and textbook-based learning does not take the students' personal and social educational development into consideration. The focus of Islamic Education should enable young Muslims to better understand Islam, and foster their interest in Islamic topics. Therefore, the primary objective should be to encourage students to be inquisitive, promote independent thinking, and learn how to voice their opinions and concerns. Through these activities, the learning process will be enhanced.

Fifthly, this study provides evidence that when the learning is student-centred, the teachers are able to showcase their proficiencies in facilitating the learning process through organized discussions. As an outcome of this, students developed into self-directed learners when compared against conventional teaching practices. Subsequently, this aided students to become connected to religious instruction more interactively, which enabled them to establish their own opinions and beliefs.

Sixthly, the findings of this research showed the importance of applying contemporary real life problems to motivate students to learn, as these play a vital role in answering learners' questions. Thus, the MoE should involve students in selecting the problem scenarios in the PBL module, so that topics are relevant to the students' real lives.

Seventhly, my research makes a contribution related to teaching and learning in PBL in conventional IE, particularly in Bahraini secondary education. My research introduces a new perspective (the compatibility of PBL and Islamic learning under the umbrella of constructivism) which contributes to the expansion of learners' Islamic knowledge that is deep-rooted in Islamic sources. The learning environment in PBL gives the learner the opportunity to be an active learner in the sense of self-directed learning, critical thinking and testing individual understanding through negotiation, and allows them to learn through real life problems that link directly to their communities. The learning environment in PBL allows IE in KB to achieve the aim of IE "Increase faith" where the learner seeks to understand their sources by themselves rather than memorizing and receiving information, and thus discovers solutions to contemporary Islamic problems. This research opens new paths for Islamic researchers to deeply search into teaching and learning approaches to Islamic concepts.

Eighthly, in this research, using PBL in IE as a practical teaching strategy adds to the theoretical understanding of constructivist learning, where there is clear interaction between PBL and IE as a practice of instructional design and the theoretical philosophies of constructivism. Constructivist learning could be applied in the religion (IE) and PBL strategy under the philosophy of the constructivist view where learners' understanding is not transformed in a passive way but is individually created. New educational experiences are so often generated when learners start actively thinking trying to construct their new knowledge depending on their previous knowledge. Despite the fact that a certain degree of criticism may arise from introducing a Western educational idea "constructivism and PBL", into an Islamic culture, the effect of educational processes and practices within Islam may provide the connection by which the two standpoints can be amalgamated – combining the Islamic and Western world to encourage likeminded educational processes and aims.

Constructivism was compatible with the PBL and IE, and applicable in this study, but with certain limits. That is; IE expects students' constructed knowledge to be legitimate according to the absolutist claims of Islam, which are within the Quran and Sunnah and which state that Muslims are obliged to reflect on their religion. I argue that the application of Muslim beliefs in day to day life "earthly knowledge" can draw on a constructivist paradigm; and that through 'creating their own knowledge' by making informed decisions about mundane problems the girls are more in touch with, and have more ownership over, their own faith. This means that the construction of (legitimate) knowledge is actually confined and limited.

Finally, although there have been many studies of PBL, the majority of these have been undertaken in Western and Eastern societies and not in Arabic societies. The literature review illustrated the lack of research that has been carried out on PBL in diverse subject areas including IE in Muslim societies. Therefore, much investigation is needed into employing PBL in IE. Additionally, there is no previous research on the subject of PBL in particular in IE in KB. Thus, this study has succeeded in addressing that gap.

9.4 Recommendations for Further Research

As has been previously discussed, the participants of this research were female students in a chosen school. There is vast potential for future research. This could possibly include the introduction of PBL into other IE subjects, other age groups, a male sample, diverse areas of KB, a larger sample, other subjects such as mathematics or science, conducting the research over a longer time frame, or even carrying out a longitudinal study. In addition, research should be conducted to find an appropriate student assessment in PBL to achieve the aims stated in MoE documents.

Moreover, research to specifically investigate the role of real life problems in IE in KB, and the role of students and teachers in designing the curricula is recommended. In addition to this, research into the relationships between team members within group work, and its impact on students' learning and behaviours is advised.

To conclude, I expect in the future that my research will have an influence or impact on the MoE's plans to improve IE teaching and learning. I plan to write a report to the MoE regarding the outcomes of PBL in IE as it is beneficial for meeting the MoE's objectives such as independent and creative thinking.

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APPENDICES

APPENDIX 1: Permission from MoE

Kingdom of Bahrain
Ministry of Education
Secretariat General of the Higher Education Council
Scientific Research Directorate

مملكـــــة البحريـــــن
وزارة التربيـــة والتعليـــم
الأمانة العامة لمجلس التعليم العالي
إدارة البحث العلمي

الرقم: ٥/٤/ت م ب
التاريخ: ٣٠ ابريل ٢٠١٣م

حضرة الفاضلة أمل زايد إبراهيم الزايد المحترمة

تحية طيبة وبعد،،،

الموضوع: الموافقة على تطبيق (استمارة ملاحظة) بمدارس المرحلة الثانوية

بالإشارة إلى طلبكم المقدم بتاريخ ٢٠١٣/٤/١٦م بشأن تطبيق أداة البحث المتمثلة في استمارة الملاحظة للبحث المعنون: "طريقة حل المشكلات في التربية الإسلامية في التعليم الثانوي بالبحرين"، يسرني إعلامكم بموافقة الإدارة/ الإدارات المعنية على تطبيق أدوات البحث وفق التعليمات والشروط التالية:

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٤. جميع الإجراءات والخطوات اللازمة لتطبيق أدوات الدراسة تقع على عاتق الباحث نفسه ولا يحق له الاعتماد على كوادر الوزارة لأداء هذه المهمة.

مع تمنياتنا لكم بالتوفيق، وتفضلوا بقبول خالص التحية والاحترام.

د. فرزانة عبدالله المراغي
مدير إدارة البحث العلمي

هاتف : ١٧٨٧٣٠٦١ (٩٧٣+) – فاكس : ١٧٦٨٠١٦٨ (٩٧٣+) – ص . ب : ٤٣ – المنامة
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APPENDIX 2: Permission from MoE

Kingdom of Bahrain
Ministry of Education
Secretariat General of the Higher Education Council
Scientific Research Directorate

مملكـــــة البحريـــــن
وزارة التربيـــة والتعليـــم
الأمانة العامة لمجلس التعليم العالي
إدارة البحث العلمي

الرقم: ٨/١٨/ت م ب
التاريخ: ٠٣ سبتمبر ٢٠١٣م

حضرة الفاضلة أمل زايد إبراهيم الزايد المحترمة

تحية طيبة وبعد،،،

الموضوع: الموافقة على تطبيق أدوات بحث بإدارة التعليم الثانوية

بالإشارة إلى طلبكم المقدم بتاريخ٢٠١٣/٠٨/١٤م بشأن تطبيق أدوات البحث المعنون:" التعلم القائم على حل المشكلات في التربية الإسلامية – دراسة حالة في المدارس الثانوية بمملكة البحرين"، يسرني إعلامكم بموافقة الإدارة / الإدارات المعنية على تطبيق أدوات البحث وفق التعليمات والشروط التالية:

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APPENDIX 3: Permission from MoE

Kingdom of Bahrain
Ministry of Education
Secretariat General of the Higher Education Council
Scientific Research Directorate

مملكـــــة البحريـــــن
وزارة التربيـــة والتعليـــم
الأمانة العامة لمجلس التعليم العالي
إدارة البحث العلمي

الرقم: ٨/١٨/ت م ب
التاريخ: ٢٤ سبتمبر ٢٠١٣م

الأستاذة الفاضلة أمل زايد إبراهيم الزايد المحترمة

تحية طيبة وبعد،،،

الموضوع: الموافقة على تطبيق أدوات بحث بإدارة التعليم الثانوي

بالإشارة إلى طلبكم المقدم بتاريخ ٢٠١٣/٠٩/١٠م بشأن تطبيق أدوات البحث المعنون: **"**التعليم القائم على المشكلة في التربية الإسلامية دراسة مادة في المدارس الثانوية بمملكة البحرين**"**، يسرني إعلامكم بموافقة الإدارة / الإدارات المعنية على تطبيق أدوات البحث وفق التعليمات والشروط التالية:

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APPENDIX 4: Teacher's Guide

Teacher's Guide

(Islam regulates the marital life)

Taken from
"Provisions for the family in Islam (201)"

Using a learning process based on the principle of problem based learning (PBL) for the year 2013-2014

Prepared by
Amal Zayed Al Zayed

Introduction:

The main function of learning is to facilitate understanding, assist in the development of the learner's mental ability in order to meet challenges and thus, equipping students with efficient problem-solving skills is the primary objective of education (Treffinger, 1995; ACS Distance Education-Australian Horticultural Correspondence Schools, 2014).

Learning based on the principle of problem based learning (PBL) shows students how to reach and obtain the required knowledge for themselves, and not to expect the teacher and the book to provide them with a solution. PBL is designed to provide students with well-defined problems that they must solve as part of a team under the guidance of a tutor. Thus, this method is focused not on the teacher, but on the students (Delise, 1997; ACS, 2014).

The role of the student in this process is to solve problems through the steps of the PBL process, while you (Teacher) play the role of supervisor and monitor the student's progress in finding suitable solutions to a particular problem (Savin-Baden ; Major, 2004; Delise, 1997).

In this aspect you, as a facilitator, play the role of wise leadership in the class, focus the discussion on the target topic and help students with the learning process instead of simply being a source of information or knowledge (Delise, 1997 ; ACS , 2014)

Therefore, the purpose of this guide is to help you to form a clear vision of the programme inside the classroom.

CHARACTERISTICS OF PBL

- Curriculum is organised based on problems or well-defined cases (ACS, 2014;Schmidt et al.,2011).
- The student bears their own responsibility to learn in order to be independent (Boud and Feletti, 1999).

- PBL employs problems that reflect real-life situations, with students playing the role of professionals (ACS, 2014).
- PBL problems are characterised by imprecision and are not designed to produce clear answers. Students have to make an effort to determine the answers and in doing so, they develop important problem-solving and critical thinking skills (ACS, 2014).
- Problems are formulated in such a way that more than one solution can apply ACS, 2014).
- Some tasks require students to work in groups (Schmidt et al., 2011).
- It is essential that teaching staff allow students to come up with solutions to problems independently and limit themselves to providing basic guidance (Boud and Feletti, 1999;Schmidt et al., 2011; ACS , 2014).
- The guidance provided by teachers should take the form of techniques which the students can apply to solving problems (ACS , 2014).
- Performance and correctness of answers should govern evaluation (ACS, 2014).
- Boud and Feletti (1999) argue that the crucial elements of the process are self and peer evaluation of learning outcomes, rather than tutor evaluation.
- Theory and practice should be integrated (Boud, 1985).
- It is not just the outcome of the learning process, in the form of acquired knowledge, which is of importance, but also the learning process in itself (Boud, 1985).

General objectives of the Islamic Education syllabus:

The Ministry of Education (2011) determined the general objectives of the Islamic Education syllabus for the secondary stage. The student is expected to achieve the following objectives after they had studied the Islamic Education as part of their general education:

A. In the field of values, trends and behaviour:

1. To establish loyalty to our God, to feel proud of our religion “Islam” as a doctrine and a system of life, belonging to our homeland and readiness to sacrifice for its sake, to protect its achievements and to reinforce the correlation with our Islamic nation.
2. To feel proud of our Islamic nation and openness to international civilisations, to benefit from scientific and technological developments that support our true doctrine and are tools to reveal the valuable and unique advantages and characteristics of Islam.
3. To reinforce the trend of following our prophet, his family members and his followers, as well as to reveal the role of Muslim scientists and scholars in the course of the human development.

4. To reinforce the values of voluntary work, social solidarity, tolerance and understanding, to be responsible and make use of free time, and enforce it as a practicable behaviour in the community.
5. To pay more attention to the family, determine the responsibility of its members and to maintain relations with various social institutions.
6. To maintain concern for the environment and its components and protect them, to exploit all possible energy in the universe, and enjoy what God has created in nature.
7. To maintain the awareness of Islamic care in maintaining physical and mental health and protect the individual, family and society from risks that threaten them.

B. In the field of knowledge:

8. To develop the learner's knowledge of the Islamic faith based on absolute monotheism, and to realise the need for pure faith; to understand the general principles of the Islamic doctrine and its role in building and integrating an Islamic character.

9. To maintain the learner's relationship with the Quran and Suna through deep study, constantly seeking to understand their principles and explanations.

10. To explore the political, economic, educational and social systems in Islam, focusing on their ability and flexibility to meet with dynamic and contemporary changes, challenges and problems.

11. To be familiar with the basic provisions for personal affairs and financial transactions in Islam.

C. In the field of skills and abilities:

12. Acquisition of research, study and self-learning and to maintain effective contact with Islamic scientific references and books.

13. To develop the principles of self-confidence, independence of thought and deeds, and the spirit of the team work; as well as the principle of respect towards others' thoughts and ideas.

14. Call people to Islam and publish its principles through peaceful preaching via different media tools.

15. To resist heresy, myths, deviant beliefs, and bad social phenomena, such as extremism, violence, fanaticism and captivity in all its forms.

16. To find solutions to current social problems resulting from scientific, social, economic or cultural changes; understand the dimensions and adopt positive attitudes towards them.

In the same resource the Ministry of Education (2001) identified the major competencies for each course.
The major competencies and components for the course: The Family in Islam (201), for the second unit (Islam regulates the marital life) are as follows:
Major competencies:

1. To recognise and identify the rights of each member of the Muslim family.

Components:

- Identifies the rights of both the husband and wife.
- Identifies the rights of the parents.
- Identifies the rights of sons.
- Identifies the rights of relatives.

2. To recognise the divorce provisions and its negative effects.

Components:

- Explains the concept of divorce and its types.
- Concludes the causes behind the legitimacy of Eddah in Islam.

The learning objectives of the PBL module prepare students to;

- Address problems they face in their lives and rely on themselves to solve these problems;
- Solve problems efficiently using a flexible knowledge base;
- Use comparative analysis, identify similarities and differences between things and absorb knowledge;
- Play a role in the stimulation of the mind to understand the reasons behind legislation which are deeper than the topic itself;
- Develop a team spirit within a working group;

- Gain self-confidence;
- Develop the skill of decision-making.

The teacher's role:

As you have seen previously, the teacher's role in learning based on solving problems changes into the role of facilitator. You will therefore have to take the following matters into your consideration and ensure that your position (ACS Distance Education-Australian Horticultural Correspondence Schools, 2014; Delise, 1997):

- Provides learners with the necessary learning materials and monitors, controls and facilitates the learning process**.**
- Creates an open learning atmosphere for problem-solving based learning.
- Encourages students to present and express their ideas and views and to accept and respect others opinions.
- Gives students sufficient time to process data and to form ideas, but not push them beyond learning.
- Monitors students during the lesson to ascertain that they have covered and passed all necessary steps and procedures in solving a problem.

However, there are several matters that should be taken into consideration when performing this role, which are the challenges and problems that may be encountered when applying a new method of learning (Learning based on solving problems). Previous studies have indicated numerous challenges:

Cultural change is necessary for PBL.

- Due to familiarity with traditional models of education, students and teachers may be reluctant to adopt change (ACS, 2014; Iii White, 1996).
- It may be difficult for teachers used to a teacher-focused learning process to accept a student-focused learning process (ACS, 2014; Iii White, 1996).
- Students accustomed to being spoon fed and evaluations based on information retained may protest against new learning practices (ACS, 2014).

Stages of PBL module:
First step: problem presentation.
Second step: problem understanding.
Third step: problem analysis.
Fourth step: decision making.

First stage: problem presentation.
Numerous real life problems taken from Bahraini and other Gulf societies have been presented; most problems are taken from the Bahrain court archives and presented with different names and locations because of the confidential nature of such information. The main objective is to connect the learner with real life problems and to encourage them to approach problems and deal with them effectively. Moreover, the student will participate in solving problems that they may have previously experienced or heard about.

The teacher's role in this step is to present the problem under study, and to direct students to a short discussion of the subject.
For example: What do you know about the dowry?
Did you hear about problems relating to the dowry?

The aim of this step is to establish a relationship and contact between the student and the problem (Delise, 1997).

Second stage: problem understanding.
This stage goes through several stages:

First: To identify and extract the main vocabulary and expressions of the problem, since the problem cannot be solved without understanding the main terminology and keywords within it; and thus the meaning is stated in order to avoid any possible confusion.

Second: Processing the main ideas, where students learn how to examine the idea's positive, negative and challenging points, instead of immediate acceptance or rejection. In this regard, processing ideas is considered to be a critical and important part in understanding the problem, as without this, good ideas that may first appear to have no value may be neglected. Moreover, one of the risks that may result from neglecting idea processing is that most of the ideas proposed will not be based on the value of the idea itself, but on the emotions and sensations encountered at the time of the problem.

Third: Involves taking all factors into consideration, and is where students learn how to investigate the whole situation, taking into account all of the potential factors and not relying solely on the visible ones. When a person wants to make a decision, or even wants to think about something, there will always be a number of factors that should be taken into consideration in this regard, as if such factors are neglected, they will definitely affect the results.

The teacher's role in the second step is to remind the student that they are responsible for solving the problem. The student starts by dealing with the problem through a scheme, which helps them

focus on all of the problem's components. In groups students write down their notes and main points in order to help them in the discussion, which teaches them the skill of making notes.

The teacher plays an important role while students are finding the required information by reminding their students:

- That each student has the right to offer their ideas and take part in the groups' activities.
- To respect others' ideas and thoughts (Delise, 1997).

Third stage: problem analysis:

First: To determine the required answer in points, a student will reproduce the problem as per their comprehension and put in a list the problems that need to be solved.

Second: To extract the Quranic verses and Hadith sayings that guides us to reach a legal judgement:

By looking up the Quranic verses and Hadith sayings which are considered to be the main recourses that guide us to reach the legal judgement, the learner may take undertake some of the textbook activities which contain some of the Quranic Verses and Hadith sayings related to the topic. You may also determine which should be memorised based upon previous experience.

Third: The interpretation of the vocabulary of the Quranic verses and Hadith sayings needs the learner's deep understanding for them to build a legal judgement upon them. You may take advantage of the indexed glossary of the Quran & Hadith words, and the related interpretations as well, in order to make understanding easier and to avoid confusion.

The teachers' role

- "The bank of knowledge" The teacher should explain to their students the importance of this step as it is considered the right analysis and one that leads to the problem's solution (Delise, 1997, P:30).

- Provide students with evidence from the Quran, Sunna and a doctrinal base that promotes understanding, as the teacher is considered to be one of the resources.

Fourth stage: decision making

First: The options and possibilities – Students learn how to extract and find the alternatives and explanations instead of resorting to emotional reactions to clear explanations. The discussion within the group make it possible for the proposal of more than one alternative, as investigation of alternatives continues until a suitable one is found; there is almost always an available alternative, but it may not appear in the first instance.

Second: The proposed solution,along with the manual, should be used to apply the aforementioned tools to the decision-making process. Moreover, the student shall take into their consideration the principles of the decision-making process, that is, they have to always be able to advise themselves as well as people around them of the real reason behind any decision made, but also realise the possibility that they may have to change that decision. What is more, in the decision-making process there will be an accurate balance between things, and in order to make the least harmful an most beneficial decision, they must bear in mind that not making any decision is considered to be a negative state of helplessness which should be avoided at all costs.

Third: making the decision or legal judgement is conducted through open discussion amongst the concerned groups in order to present the legal judgement along with legal evidence from religious texts. The student has to take into their consideration the ambiguity of other groups' decisions, and has to enquire, discuss and express their opinion in a scientific and logical manner based on critical thinking. There may be more than one legal judgement for one matter, which has also happened in our prophet's life. It is of vital importance to identify and explore the others' way of thinking, as many situations require the effective involvement of others because they have valuable opinions and ideas of great benefit that may help you in making your decisions, and so their thoughts and ideas become complementary to your own.

The teacher's role:

- To guide the student as to how to differentiate between reality and opinion, and how to build ideas based on evidence.
- To train students how to evaluate evidence through comparison between options and possibilities and choose the most suitable.
- To train students to put forward their ideas and respect other students' ideas and viewpoints.

Moreover, the teacher plays a significant role in the general evaluation of the learning situation, including:

- The students' use of resources.
- Their time management.
- The effectiveness of the plan they implement.

Steps for lesson preparation in accordance with a method of learning based on the PBL principle:

1. Search for a real problem or proposing a problem that is similar to the real one, and then apply the steps of the problem- solving principle.
2. Problems should be chosen from real events that fit the students' level.
3. Prepare forms (learning activities) as per the solving problem steps which are empty of answers, but leave the option of inserting a paragraph to help students when first training students in this method.

A ten lesson example of this technique has been provided to accompany this guidance.

Lesson application:

1. Students work in groups consisting of five to six students, according to the number of the students in the class; each group has a leader and recorder to insert their answers into the form.
2. Each group is given a form to record their answers, when students finish writing their answers; the teacher initiates the discussion and reconciles opposing views.
3. It is important to comply with the time allotted for the lesson execution in order to ensure students become accustomed to the process of thinking control.
4. Emphasise completion of the external activities, results of which should be presented to the teacher at the end of the semester.

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APPENDIX 5: The arbitrators of Teacher Guide of IE PBL module

Number	Names	Function
1	Nasser Jaber al Fayez	The first Curriculum specialist
2	Nadia Ahmed Alssaqer	Curriculum specialist
3	Sumaya Mohammed Salah	Curriculum specialist

APPENDIX 6: The guidelines of the PBL process

The norms & provisions of the family in Islam (201)

Lesson Four

The Husband's Rights

Page 62

Group ( )

Number of group members ( )

Mohamed has some inquiries regarding the matter of the husband's rights, he wants to know the Islamic verdict concerning this issue, help Mohamed to find out the required answers to his inquiries.

First step: Problempresentation

I am a young man, twenty seven years old. Recently, I got married with a girl who is four years younger than me, we have a little daughter. Our financial and social status is more than satisfactory, and it seems that we have no problems. However, I suffer from my wife's ignorance; regrettably, she does not give me the care and interest I need. We have no special or intimate communication. In her opinion, marriage is only the house affairs, while I look at marriage from a different angle; it is a full understanding between the two, not only the household and child-rearing responsibilities and duties.

The two questions here are:

-What are the real reasons for divorce?

-Is there any solution for my problem?

Despite my feeling of dissatisfaction towards my condition, I feel so sorry for Ahmed's case, who is my neighbour, the situation between him and his wife reached a critical stage. He complained to the court demanding his wife to come back home, which she left eight months ago to her family's house, previously he made efforts to persuade her to come back home, but she refused. He claims that she did not treat him nicely, he demands her to give

him his full rights as a husband. Meanwhile, she claims that he treated her badly without any respect, which he totally denies.

Second step: the problem understanding

The key words in the problem

The key words in the problem
1.
2.

Instructions for the skill of finding the meanings of the key words in the text:

1. Read the text carefully.
2. Identify the key words in the text.
3. Use your previous experience to find the meanings of the key words.
4. Find the meanings of the key words using the textbooks or any other linguisticsource.

A. Ideas Processing

First: Positive aspects	**Second: Negative aspects**
1- **2-** **3-**	**1-** **2-** **3-**

Third: Stimulating aspects
1.
2.
3.

Instructions for the skill of ideas processing:

1. Examine all of the aforementioned problem text aspects (positive, negative, and stimulating aspects).
2. What are the positive points in the problem text?
3. What are the negative points in the problem text?
4. What stimulates you in the problem text?
5. Do not accept or reject any idea immediately.
6.

C. Considering all of the factors:

First: Factors affecting the victim	Second: Factors affecting the offender
1. 2. 3.	1. 2. 3.

Instructions for the skill of considering all factors:

1. Arrange the factors according to their importance.
2. Mention the factors that affected the victim.
3. Mention the factors that affected the offender.
4. Make sure that you do not forget any of the factors.

Third step: problem analysis

A- **Determine the required questions in points**

1.
2.
3.
4.

B- Look up the verses from the holy Quran and the prophet's sayings from the Hadith books, which may lead us to the legal ruling.

C- Give the meanings of the vocabulary from the holy Quran and Hadith.

Instructions for the skill of problem analysis:

1. Identify the matters that you want to find a solution for.
2. Use tools (key words – processing ideas – all factors)
3. Identify the Quranic verses and the Hadith sayings related to the subject.
4. Explain each word you need to understand the Quranic verses and Hadith sayings.

Fourth step: Decision making stage

A. Options and possibilities:

Problem1	**Problem 2**	**Problem 3**
-	1-	1-
2-	2-	2-

B. The proposed solution with the evidence:

The problem	**The proposed solution**	**legal evidence**	**The reasonable explanation of proposed solutions**

B. Decision-making (legal judgment)

Discuss with the other groups your decision data in order to reach the final legal judgment.

<u>Instructions for Decision making skill.</u>

1. Use the aforementioned tools to identify all of the possible options and possibilities, and take them into your consideration in making your decision.
2. Elicit the most likely options and possibilities to solve the problem instead of resorting to emotional reactions.
3. Compare between the options and the possibilities and choose the most appropriate, depending on evidence and logic.
4. Recognize and accept others' opinions, avoid individual opinions.
5. Combine your personal opinion and the others' views to draw lessons.

APPENDIX 7: Letter seeking permission from the Bahraini Court

السيد الفاضل محمد عبدالرحيم بوجيري .....المحترم

مدير ادارة المحاكم

أنا باحث دكتوراه في "جامعة هيدرسفيلد"،ببريطانيا كلية التربية .أحد الأهداف الرئيسية لبحثي لتقييم نتائج التعليم باتباع منهج التعلم القائم على المشكلة في "التربية الإسلامية" في المرحلة الثانوية بمملكة البحرين .

أتقدم اليكم بطلب الحصول على قضايا واقعية من المحكمة حيث أن أحد مزايا البحث ان تكون المشاكل من واقع المجتمع .

مواضيع القضايا (قضيتين لكل بند) كالتالي:

- أولاً- الحقوق المشتركة بين الزوجين

ثانيًا- حقوق الزوجة:

- أ – المادية
  - المهر
  - النفقة
- ب – المعنوية

ثالثًا- حقوق الزوج

رابعًا- حقوق الآباء والأبناء

خامسًا- حقوق الأرحام والأقارب

سادسا- الطلاق

سابعا- العدة

كما تتعهد الباحثة الألتزام باخلاقيات البحوث حيث أن اسماء الأفراد في البحث ستكون مجهولة .

للحصول على مزيد من التفاصيل الرجاء الاتصال بي عن طريق الهاتف أو البريد الإلكتروني إذا كنتم ترغبون في أي استفسارات أخرى .

وامل مكنك مساعدتي في طلبي ونتطلع إلى أن نسمع منكم في أقرب وقت ممكن

مقدم الطلب:

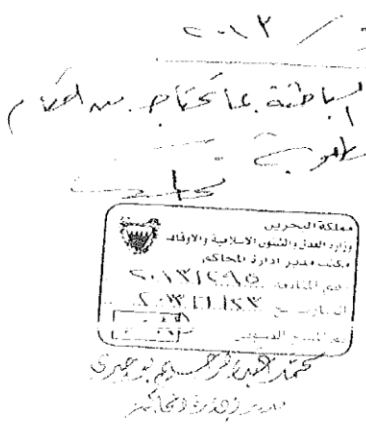
أمل زايد الزايد

٠٠٩٧٣٣٣٠١٤٠٤٠

٠٠٤٤٧٧٣٣٦٧٥٤٣١

amel.alzayed@gmail.com

المرفق: رسالة تقصيارية عن الباحث من جامعة هيدرسفيلد ببريطانيا



APPENDIX 8: A sample of the problems from Bahraini Court

[redacted] و قد أثمر زواجهما عن خمسة أولاد، هم ([redacted]) و([redacted]) و ([redacted]) و ([redacted])، **وحيث إنها** ترغب في أن يخالعها المدعى عليه، الأمر الذي حدا بها إلى رفع دعواها بطلبها المذكور أعلاه.

و قد ركنت المدعية في دعواها إلى صورة ضوئية من وثيقة عقد النكاح المقيدة برقم ([redacted]) الصادرة من [redacted]، و صورة ضوئية من بطاقة الهوية الخاصة بها.

و حيث إن المحكمة قد نظرت الدعوى في جلساتها المنعقدة علناً على النحو المبين في محاضرها.

و بجلسة [redacted] لاحظت المحكمة وجود دعوى مقابلة مقيدة برقم [redacted] مرفوعة من قبل المدعى عليه يطلب في ختامها الحكم بإلزام المدعية بالرجوع إلى منزل الزوجية و عدم الخروج منه إلا بإذنه و إلزامها بحسن العشرة معه وحسن السيرة و السلوك و القيام بالواجبات الزوجية، حيث إنها خرجت من منزل الزوجية و استأجرت شقة بعيدة عن منطقة سكنى زوجها (المدعى عليه) و ترفض العودة إلى منزل الزوجية رغم المحاولات الودية التي قام بها، فقررت المحكمة ضم الدعوى المقابلة للدعوى الأصلية لتنظرهما معاً و لتصدر فيهما حكماً واحداً، ثم سلمت المحكمة لائحة دعوى كل طرف للطرف الآخر، فتقدم المدعى عليه بمذكرة رد سلم نسخة منها للمدعية خلص فيها إلى طلب رفض دعوى المدعية حيث إنه يرفض مخالعتها حفاظاً على مصلحة الأولاد والأسرة.

و بجلسة [redacted] لم تحضر المدعية، و حضر المدعى عليه و قدم حافظة مستندات طويت على نسخة من عقد إيجار الشقة التي استأجرتها المدعية بتاريخ [redacted] حيث

APPENDIX 9: Arbitration form

A proposed model for learning through the problem-based learning

The researcher Amal Zayed Al Zayed, from the University of Huddersfield in the United Kingdom, is hereby pleased to present the Arbitration model in order to obtain a PhD degree in Islamic Education. The research subject is: Problem based learning in Islamic Education – A case study of secondary schools of the Kingdom of Bahrain.

This research requires the preparation of a proposed model for learning through the method of problem-based learning for the secondary stage in the Kingdom of Bahrain as an educational method. This enables students to obtain knowledge and be independent without being expected to find the required solutions from a textbook or expect the same from their teacher. This method will have a positive impact on the new generation, who will have the ability to meet the more dynamic challenges of the modern age. Moreover, it will stimulate student's minds to understand the reasons behind legislation, which is considered a deeper study than the topic itself.

I look forward to receiving your comments and guidance concerning this proposed model, I am particularly interested in:

- Appropriateness of the objectives of the study.
- The clarity of the phrases.
- Any further amendments you deem appropriate.

Best regards,

Amal Zayed Al Zayed

Contact details:
0097333014040
00447714750160
amel.alzayed@gmail.com

A proposed form for learning through the method of the problem based learning, to be used by the team of arbitrators:

Name: ……

Field of specialty: ……

Place of work: ……

Signature: ……

No.	Proposed model	Arbitrator's opinion		Proposed amendment
		suitable	Not suitable	
1.	The PBL proposed is compatible with the objectives of the Ministry of Education in regard to the subject of Islamic Education in the secondary stage.			
2.	The content of the proposed model lesson matches the objectives set for it.			
3.	The lesson's presentation, organisation and the time allotted are suitable.			
4.	The contents and organisation of the activity are suitable for the course content.			
5.	The compatibility of the proposed model with the principles of Islamic Education in terms of thinking, analysis, and judgment.			
6.	The suitability of the proposed model for comprehension of the teaching material.			
7.	Formulation of the problem in a clear and understandable way.			
8.	Formulation of the problem in a way that stimulates the student for learning.			
9.	Formulation of the problem in a way that is suitable to the student's abilities and their level of thinking.			
10.	Compatibility of the problem with the student's previous experiences.			
11.	The suitability of the instructions			

	during the steps of the solving problems process in guiding the student.			

APPENDIX 10: The arbitrators of IE PBL module

Number	Name	Function
1	Nasser Jaber Al Fayez	The first Curriculum specialist
2	Nadia Ahmed Alssaqer	Curriculum specialist
3	Sumaya Mohammed Salah	Curriculum specialist
4	Ebraheem Radhay Jasseim	Curriculum specialist
5	Ebraheem Ahmed Mohammed	Curriculum specialist
6	Abdul Jaleel Khalifah Zaqlol	Curriculum specialist
7	Fareed Ismaeil Al Twani	The Educational Supervision Specialist
8	Kamal Thaha Muslum	DR. in Arabic Language and Islamic Education in Bahrain University
9	Khaled Ahmed Al Sakahai	DR. in Islamic Education in Bahrain University

APPENDIX 11:Semi-Structured Observation

Teacher:
Class:
Lesson:
Date:

Teacher's performance observation:

Teacher's role	Evidence
1- Moving among groups in a suitable situation.	
2- Creating an open environment for problem-based learning	
3- Encouraging the students to express their ideas and opinions and accept others' opinions.	
4- Letting students have enough time in which to process the information and create ideas, instead of pushing them towards learning.	
5- Watching the students' work during the lesson, making sure that they were following the correct steps.	
6- Making sure that all students are involved in the group work.	
7- Teaching the students how to differentiate between facts and opinions.	
8- Training the students on weighing alternatives through comparing their choices and predictions.	
9- Creating an atmosphere of confidence among students in evaluating each other fairly and honestly.	
10- Comments :	

Students' performance observation

General situation, the problem, and the students' role	Evidence
1-The general situation: How was the students' response towards the new situation?	

2- The problem: - - Does the problem lead to and motivate for learning? - Is the problem related to real life ? - Does the problem match the students' levels and the content? What is the students' interaction with the problem, and how do they link it to their previous experiences?	
3- The student's role: 3.1 Learning through relating the lesson to their real lives and their previous experiences.	
3.2 Working effectively and making sure everybody is involved in group work	
3.31Working in groups according to the available plan. "Following instructions"	
3.4Achieving the minimum level of the task's requirements	
3.5Responding to each other in communicating and feedback to show their commitment in sharing information.	
3.6Generating new ideas.	
3.7 Using information from the book and the included verses from the Quran and Hadith.	
3.8Evaluating themselves and partners in the same group and other groups.	
3.9 Developing the ability to analyse and deeply understand the problem, and weighing the alternatives and possibilities.	
3.10 Differentiation between fact and opinion.	
3.11Discussion among groups	
3.12 Making a decision	
COMMENTS	

APPENDIX 12: Main Questions of the Semi-Structured Interview used for Students

1- As a novel learning method, the IE PBL module has both strengths and weaknesses. In your opinion, what are some of these strengths and weaknesses?

2-What are the differences between the new method and the previous method?

3-How can sharing and exchanging ideas with your friends help you?

4-Could you give me a real situation from your classes where you learnt from your group members within your group work which had a great influence on you?

5-Is this module suitable to solve problems that you face in your daily life, whether in school, in your family or in your society?

6-Have you experienced a real problem in Bahrain society or from the courts of Bahrain? How did this problem affect you?

7-When your instructor tells you that you are a judge, do you feel that you perform your role perfectly?

8- The PBL module consists four stages, one of the stages is the problem presentation, how is the problem presented in the group?

9-How did your realization of the both sides of the problem, the positive and the negative sides, help you in solving the problem? Give me an example.

10-After you determined the positive and the negative sides, the stage of analysing the problem begins, in this stage you refer to the school book to find the proofs and arguments, do you think that the proofs in the school book are enough for solving the problem?

11-During the discussion, did the group members divide into yes and no?

12-Did you face a situation where both alternative answers were similar, but you wanted the strongest alternative, with the strongest proof?

13-Does the teacher interfere?

14-Does she give you the correct answer?

15-Does the teacher accept all opinions or does she sometimes reject any of your opinions?

16-How does this method of learning help you as a student in your learning process?

17-Does this method help increase your faith and belief?

18-Does a student depend on herself to find the right answer?How does this help the student?

19-How can you be responsible for your learning?'

20-Does the PBL module develop your knowledge?

21-What are the abilities you have discovered?

22-Generally, on the basis of your experience in participating in this module, what advice could you give to the Ministry of Education and to your teachers?

23-If the MoE continued to apply PBL in the future, what should the MoE take into consideration in order to overcome the problems of PBL?

24-Anything else would you like to say?

APPENDIX 13: Main Questions of the Semi-Structured Interview used for Teachers

1. PBL as a new way of learning has got some advantages as well as some disadvantages. Could you tell me the module's advantages and disadvantages in the light of your own experience as one of the participant teachers?

2. Can PBL be applied in all of the courses of Islamic Education?

3. How can you compare your roles in the conventional teaching method and in the new teaching method of PBL?

4. How can you describe the students' reaction towards the module from the beginning to the end of the experience?

5. Through your observation of your students, do feel that you have any students who have got new ideas?

6. In regard to the girls' work in the groups, do you think that there is any interaction in this work?

7. Did you notice that there were some students who were unwilling to participate?

8. The problems were real problems, they were taken from the Bahraini court and the website of Fatwa, they have really happened in our society.Did the problems encourage and motivate students to learn as they were real problems?

9. Do the students acceptothers' opinions in the course of discussionin the implementation of PBL?

10.The last skill was the skill of making adecision, in this stage the students might have more than one answer or alternative, here the students need to weigh the provided answers and alternatives, did the students experience this stage or practice this skill?

11. Finally, as a teacher who has been involved in this experience, what is your advice to a teacher who has not entered into such an experience yet?

12. What would you say to the Ministry of Education regarding PBL? What would you advise them?

13. Thank you sire. Would you like to add anything else?

APPENDIX 14: Main Questions of the Semi-Structured Interview used for Curriculum Specialists

1. As arbitrators, through your evaluation of the proposed lessons for the problem-based learning approach, what is your opinion of this new module?

2. How does the PBL module proposed correspond with the curriculum documents for the year 2011?

3. Through my review of the document issued by the MoE, I found that it contained cognitive skills.The aim is to enable the student to acquire the necessary skills, abilities, self-confidence, to be dependable and to accept and respect others' views and opinions. Do you think that this PBL module can realize such aims?

4. Why do we make the student the core of the teaching/learning process?

5. Do you believe that expressing an opinion is restricted to the high-level students, as stated in the MoE's "Teacher's guide"?

6. The Quality Assurance QAA reported that the schools' concentration is on the students at the medium and low levels only, while the high level students are ignored. How can we overcome such problems or this disadvantage?

7. It is written in the textbook regarding the divorce of a woman during her "woman's menstrual cycle " that the husband is guilty and the wife is considered as divorced. But in the Bahraini court a woman during her "period" may not be divorced, so how can students assess the differences between the school book and the life around them?

8. The QAA's report mentioned that the aim of developing teaching/learning strategies is to challenge students' potential and abilities. Here I just convey to you some situations that I faced with students: How did we discover an intelligent student so quickly, for example, in the lesson on the dower, the girl says that her father seized all of her dower and did not give her any, but afterwards sometimes she took some money from her father secretly, the question here is, is this considered to be a theft or can we consider that she recovers her dower as is her right? Most students said that the dower is her right, but one of the students gave a different analysis, she concluded from the Quranic Verse that the pronoun referred to the women and that proves her right to her dower. What do you comment on this point when you find that a student analyses in this way?

9. The QAA aims to measure the learning outputs from two sides, the academic side and the personal side. Their report on their website stated that personal achievement is measured by the student's ability in the group work, analytical thinking, self-confidence and working independently as the foundation of this approach to Islamic education. Do you take this into your consideration in your planning?

10. Do you think that the PBL approach meets such requirements and answers such questions or realizes our targets?

11. Through my observations, the students did not accept the PBL module in the beginning, they said that they were used to listening to the teacher only, they were just listeners and they were being depended up onto obtain the information. However, after they were involved in the module, they said that they liked learning in such an interesting and motivating way, but when they came to the exams they found something different. Do you have any plans to develop the exams?

12. In the end, as a specialist and an official in the Ministry of Education, what would you say about the module? 13. Thank you sire. Would you like to add anything else?

APPENDIX 15: Pre-Questionnaire

Dear participant,

Thank you for responding to this questionnaire. The educational system needs to be continually updated and refined, so that it can develop and continue to provide a service to students. Information is collected from these studies which can then be analysed and evaluated for future application.

This questionnaire forms part of the data collection process in a developmental study. The goal of the project is to promote Islamic Education studies to female secondary school students in the Kingdom of Bahrain.

This research forms part of a PhD qualification at the University of Huddersfield in the United Kingdom and is sponsored by the University of Bahrain. Your contribution to this research will further our understanding of this topic.

Completing this questionnaire provides the researchers with information that can be processed and analysed in order to make conclusions concerning Islamic Education. Your co-operation helps us to achieve an active participation from which we can select a sample for analysis.

The results of the research will be anonymous, so you are not required to provide a name.

Thank you once again for participating in this research.

Yours sincerely,

Amal Zayed Al-Zayed

Contact:

Amel.alzayed@gmail.com

0097333014040

00447714750160

Pre-questionnaire

Please ensure that you have read this brief before completing the remainder of the questionnaire.

• Participation in this questionnaire is voluntary.

• There are four pages to this questionnaire.

• The questionnaire has been divided into two subsections.

• Please complete the questions to the best of your ability.

Section (1): To what extent are the following practices incorporated in teaching and learning methods within the context of Islamic education?

Islamic Education Teaching and Learning processes	**Always**	**Often**	**Sometimes**	**Rarely**	**Never**
1- The teaching and learning process of Islamic Education involves memorizing the material for the exam only.					
2- The teaching methods in Islamic Education give you the opportunity to obtain an in-depth understanding of Qur'anic verses and Sunnah texts.					
3- The schoolbook activities help you to learn.					
4- Rote learning (memorizing the material) plays a significant role in the current teaching and learning process.					
5- The current methods of teaching help you solve your daily problems.					
6- The teacher accepts answers from all their students.					
7- The teacher asks their students to provide evidence to support their responses.					
8- The teacher asks their students to clarify or analyse their answers.					

Section (2): To what extent do you wish to become familiar with the following practices implemented in Islamic education?

Islamic Education Teaching and Learning processes	**Always**	**Often**	**Sometimes**	**Rarely**	**Never**
9- I apply and use the information obtained in other real life situations.					
10- I learn through analysing and understanding processes.					
11- I participate in activities that help in the occurrence of learning.					
12 -I exchange views and ideas about our lessons.					
13- I conclude and obtain information for myself.					
14- I connect the learning material with real situations.					
15- I understand the reasons behind Islamic verdicts.					
16- I learn through groups that help me learn.					

APPENDIX 16: Post-Questionnaire

Dear participant,

Thank you for responding to this questionnaire. The educational system needs to be continually updated and refined, so that it can develop and continue to provide a service to students. Information is collected from these studies which can then be analysed and evaluated for future application.

This questionnaire forms part of the data collection process in a developmental study. The goal of the project is to promote Islamic Education studies to female secondary school students in the Kingdom of Bahrain.

This research forms part of a PhD qualification at the University of Huddersfield in the United Kingdom and is sponsored by the University of Bahrain. Your contribution to this research will further our understanding of this topic.

Completing this questionnaire provides the researchers with information that can be processed and analysed in order to make conclusions concerning Islamic Education. Your co-operation helps us to achieve an active participation from which we can select a sample for analysis.

The results of the research will be anonymous, so you are not required to provide a name.

Thank you once again for participating in this research.

Yours sincerely,

Amal zayed Alzayed

Contact:

Amel.alzayed@gmail.com

0097333014040

00447714750160

Post-questionnaire

Please ensure that you have read this brief before completing the remainder of the questionnaire.

• Participation in this questionnaire is voluntary.

• There are four pages to this questionnaire.

• The questionnaire has been divided into two subsections.

• Please complete the questions to the best of your ability.

Section (1): To what extent is problem-based learning (PBL) used in the following practices in Islamic education?

Islamic Education Teaching and Learning processes	**Always**	**Often**	**Sometimes**	**Rarely**	**Never**
1- The teaching and learning process of Islamic Education involves memorizing the material for the exam only.					
2- The teaching methods in Islamic Education give you the opportunity to obtain an in-depth understanding of Qur'anic verses and Sunnah texts.					
3- The schoolbook activities help you to learn.					
4- Rote learning (memorizing the material) plays a significant role in the current teaching and learning process.					
5- The current methods of teaching help you solve your daily problems.					
6- The teacher accepts answers from all their students.					
7- The teacher asks their students to provide evidence to support their responses.					
8- The teacher asks their students to clarify or analyse their answers.					

Subject (2):How often did you engage in practices incorporating PBL during the course of Islamic education?

Islamic Education Teaching and Learning processes	**Always**	**Often**	**Sometimes**	**Rarely**	**Never**
9- I apply and use the information obtained in other real life situations.					
10- I learn through analysing and understanding processes.					
11- I participate in activities that help in the occurrence of learning.					
12 -I exchange views and ideas about our lessons.					
13- I conclude and obtain information for myself.					
14- I connect the learning material with real situations.					
15- I understand the reasons behind Islamic verdicts.					
16- I learn through groups that help me learn.					

APPENDIX 17: Student Self Evaluation Form

Student Self Evaluation Form

Class: **Date:**

Name:

Activity	**Excellent**	**Good**	**Fair**
A- I contributed ideas/ facts.			
B- I came up with some learning issues.			
C- I used the sources of Islam when solving the problems.			
D- I helped to think through the problem.			
E- I contributed new information.			
F- I helped my group in doing its work.			

APPENDIX 18:The arbitrators of Questionnaires

Number	Name	Function
1	Kaldoon Abu Alhaija	The Consultant of the Minister of Education at Measurement and Evaluation Department
2	Kamal Thaha Muslum	DR. in Arabic Language and Islamic Education in Bahrain University
3	Khaled Ahmed Al Sakahai	DR. in Islamic Education in Bahrain University
4	Nasser Jaber Al Fayez	The first Curriculum specialist
5	Ebraheem Ahmed Mohammed	Curriculum specialist
6	Mohammed Alfakeih	The Educational Supervision Specialist
7	Sameer Noor Eldeen	The Educational Supervision Specialist

APPENDIX 19:The Kolmogorov-Smirnov test

Tests of Normality			
	Kolmogorov-Smirnov		
	Statistic	df	Sig.
Pre			
The teaching and learning process of the Islamic Education aims at memorizing the material for the exam only.	.156	100	.000
The teaching methods of the Islamic Education give you the opportunity to obtain a deep understanding of the Qur'anic Verses and the Suna texts.	.191	100	.000
The schoolbook activities help students to learn.	.253	100	.000
Teaching and learning by heart (memorizing the material) plays a significant role in the current teaching and learning process.	.287	100	.000
The current methods of teaching help you solve your daily problems.	.191	100	.000
The teacher inside the classroom accepts all answers from his students	.185	100	.000

The teacher asks her students to provide evidences to support their answers.	.180	100	.000
The teacher asks her students to clarify and analyze their answers.	.248	100	.000
Post			
The teaching and learning process of the Islamic Education aims at memorizing the material for the exam only.	.211	100	.000
The teaching methods of the Islamic Education give you the opportunity to obtain a deep understanding of the Qur'anic Verses and the Suna texts.	.263	100	.000
The schoolbook activities help students to learn.	.188	100	.000
Teaching and learning by heart (memorizing the material) plays a significant role in the current teaching and learning process.	.174	100	.000
The current methods of teaching help you solve your daily problems.	.230	100	.000
The teacher inside the classroom accepts all answers from his students	.453	100	.000
The teacher asks her students to provide evidences to support their answers.	.507	100	.000
The teacher asks her students to clarify and analyse their answers.	.450	100	.000
a. Lilliefors Significance Correction			

University of

HUDDERSFIELD

Inspiring tomorrow's professionals

Our Ref: LGH/Alzayed 1168625 15 December 2015

Ms A Alzayed
40 Devell House Rushoumle Place Manchester
M14 STG

Dear Ms Alzayed

RESEARCH DEGREE EXAMINATION

Further to your examination, the examiners have recommended that you be granted the degree of Doctor of Philosophy, subject to minor amendments and corrections being made to the thesis to the satisfaction of the internal examiner. The University has accepted this recommendation.

As your right to fulfil these conditions, you have a period of three months in which to submit one soft bound copy of your revised thesis to your School Research Office, together with a summary of changes made in response to the examiners' comments, no later than 15 March 2016.

In the case of non-submission, you will be automatically be classed as a fail and withdrawn from your course unless you have approved extenuating circumstances.

If you are affected by valid extenuating circumstances which prevent you from submitting your thesis by the specified date, you should complete the Extenuating Circumstances (EC) Claim Form and submit this to your School Research Office no later than 5 working days after the deadline stated above. Please refer to the Policies and Regulations page of Unilearn for further information, including a copy of the claim form.

If you are unhappy with the decision of the examiners, the regulations regarding the submission of an

appeal are contained in the Students' Handbook of Regulations and can be found at:

http://www.hud.ac.uMregistr y/regulations and policies/student regs/ (Section 4, Assessment
Regulation 11)

For the purposes of an appeal, the date of notification of the outcome is the date of this letter. If you are considering an appeal, please do take account of the grounds on which an appeal can be considered as detailed in paragraphs 11.2 and 11.3 of the link above.

Queensgate, Huddersfield, HD1 3DH, UK
+44 (0) 1484 422288 +44 (0) 1484 516151

INVESTORS IN PEOPLE

Patron: HRH The Duke of York, KG

Vice-Chancellor: Professor Bob Cryan DL MBA DSc CEng FIET FHEA

Entrepreneurial University of the Year

Please do not hesitate to contact me if you require any further information or clarification of the
examination process.

With best wishes for the successful completion of your

research. Yours sincerely

Lauren Hollingworth
Registry Administrative
Officer Registry

Tel: 01484 472753
Email: I.hollingworth@hud.ac.uk

Dr Emma Salter, Main

Supervisor EPD School
Research Administration
Report on the Viva

Both examiners were in agreement that Amal Alzayed defended her work well. She was able to engage with us at a high intellectual level, and was confident throughout the viva with her answers to our questions. Where necessary, Amal clarified issues, which we had identified during the reading of the thesis, and we were reassured with her answers. We have requested that clarifications of these issues are written in to the final thesis as identified as part of the amendments below. We would like Amal to do a little more work based on two (perhaps three) papers which she has not made reference to but are very important in supporting her research. Her supervisor has the details. They are: Al-Shaibani et al (2003), Student generated learning objectives: Extent on congruence with faculty set objectives and factors influencing their generation, *Education for Health* 16(2) 189-197 and Kassab, S et al (2005), Student-led tutorials in problem-based learning: Educational outcomes and students' perceptions, *Medical teacher* 27(6), 272 —

282. A third paper, again by Kassab, 5 et at (2005), entitled Gender—related differences in learning in student-led PBL tutorials, *Education for Health* 18(2) 189-197, might also discuss PBL in Bahrain, and if so should be referred to likewise. We both agreed that it was important that these papers were referenced to support the debate around Amal's arguments relating to problem-based learning.

Dr M Walker and Dr Adrian Brockett

- **Corrections**:

  The three papers that have been added:

1. Shaibani et al (2003), in page (14, 49. 75).
2. Kassab, S et al (2005a), in page (14, 194).
3. Kassab, S et al (2005b), in page (14, 239).

Student Name: Amal Alzayed

Date of Oral Examination: 7 Dec 2015

Type of Award: PhD

LIST OF AMENDMENTS/ CORRECTIONS REQUIRED FOLLOWING EXAMINATION:

EXAMINERS' COMMENTS	STUDENT RESPONSE
Some typos have been noted here and there in the margin but not listed here.	✓
p. 12 governance - Legal rulings?	✓ in p. 13
p. 13 3 ?s. QI. \What requires? Q2. What does 'associated with the command' mean? Q3 is good, but is it true?	
p. 13 /: Aims, p. 14 bot main aim. p. 15.1 aims or objectives? Research objective on p.46 I/4 somewhat wider. Clarify/ these.	✓
p.14 Qur'an reference?	✓
p.14 end of § 1.3. More of a mention of the findings of 'some other authors' who specifically refer to Bahrain, e.g. AI-Shaibani et al (2003) and Kassab et al (2005a & b) should be included here and in the Literature Review (see Abdul Razzak 2012).	✓
P 18 penult 'evolution'	✓
P 19 Tamimi x 2	✓
p 19 middle of page — qualitative?	✓
p 19 § 2.3 2nd para: According to one account, the first modem school to open in the country was a missionary elementary school set up in 1892 in Manama by the American Dutch Reformed Church. Another foreign private school was apparently opened in 1910: Al-lttihad school, funded by the Persian community of Bahrain.	✓
p 20 Was Grand Khadija the American missionary school?	No " Grand Khadijh" is different as explained in p. 19
p 21 2 ?s	✓
	✓
p. 26 — some lack of clarity about objectives	✓
p.28 mid ?	✓
p.30 bottom of page — the final sentence of the quote is unclear	✓
p.3 1.5 'help a Muslim'. Also does 'futile' follow from 'most suitable'?	✓
31 middle — 1s Alnahlawy's separatist goal of IE a good one to endorse? If not, should it stand without comment? Compare the MoE's 2" goal on p. 42 of openness.	✓
32 middle - Islamic knowledge?	✓
32 middle — all?	✓
34 § 2.5.3 should show clearly whether you are talking about Islam or IE (e.g. p.38 last three lines.)	✓
34 2/3 The 4 principles should be clearly stated here.	✓
35 mid — Qur'an reference to 1' principle?	✓
p.36 Unclear what you are trying to say in the last 3 lines + p. 37 lines I-2.	✓ in p. 37
p.37 Danasory — ijma' and qiyas?	✓
38 /ianalogy rather than ontology?	✓ in p.37
38 taklif or takteef	✓ in p.39
38 Riyad at-SaIihin a later work?	✓ in p.39
39 /, English	✓
p.42 bet — scientific?	✓
p.43 3 Qs. *psychological* vs cognitive? Based on in the light	✓

of? Find a better word than hunch.	✓
45 top two sentences about this study seem out of place. Better in the introduction or conclusion?	✓
48 bot - reference?	✓
49.4 contradicts last *paragraph* of section?	✓
50 bot — Cramond et aI quote unclear	✓
5I - § **3.2.3** paragraphs 2 and 3 to previous §?	✓
57 A useful table, but Delise is incorrectly described compared to p.54 re 'connecting' (discovering) and 'visiting' (analysing).	✓ in p.56
58.7 an analysis, or evaluation, is needed at the end of the paragraph. Kottamei seems to be being criticised and the differences between IE and other modules is left hanging in the air.	✓ in p.57
58 penultimate sentence — what is the existing value?	✓
p.60 last sentence of section?	✓
65 Does this follow?	✓ in p.59
67 'strategic learner' better than 'savvy student'?	✓
68 top syntax. Mid paragraph mixes prior knowledge with participation — unclear.	✓ in p.67
69 reference error?	✓
70 not a sentence.	✓
p. 75 ?	✓ in p.76
77 3 small points	✓ in p.76
§3.4 has a good conclusion but the argument leading up to it needs to be clearer.	✓
79 1/3 If needs "" and page reference.	✓ in p.78
80 Al-Ghazali quote unclear and needs a reference to his work. Two other small points.	✓ in p. 79
81 Al-Dhuhri?	✓ in P.80
81 top paragraph last sentence — remove sentence referring to maths and science (again on p. 250 end top paragraph).	✓
p.82 Rewrite middle paragraph	✓ in p. 81
82 Ha1a1 and haram in brackets after English equivalents	✓ in p.81
82 Correct the quote from Grimmitt **p.208** and check if it means what is implied here.	✓ in p.81
83 needs "" and page reference.	✓ in p.82
84 — a number of clarifications needed, including 1" two or three sentences of middle paragraph. And in what way is Fox p 23 a critique?	✓in p 83
84 bottom of page "Otherwise"?	✓ in p. 83
85 top, middle and bottom paragraph — argument needs to be clearer	✓ in p.84
86 Some clarifications needed. Also combine final paragraph (it can be concluded) and 87 top (to sum up)	✓ in p.86
88 Supply Arabic root for thinking.	✓ in p.87
89 small points in first paragraph	✓
90 and 91 typos	✓
92 small points and typos	✓
93 2"' paragraph unclear - clarification needed	✓
94 needs "" and page reference.	✓
96.6-8 unclear + typos	✓
104 last 2 bullet points — views the arbitrators?	✓
108 bot - unclear	✓

121.2?	✓
141 Which do not play? Critical thinking?	✓
144.3 up - belief in Islamic law?	✓
145 A better definition of critical thinking could be useful to support the following examples (also p 219 6 up and 221 bottom paragraph). See p 248 where criticisms against critical thinking in religion are countered.	✓
146 ³Ƶ insufficient example. Characters of B & M?	✓
160 significant?	
172?	✓

183?	✓
190 - 3 small points	✓
194 syntax	✓
198 Smith et a1 point not fully clear	✓
199 Maintenance rather than alimony? x 3	✓
219?	✓
221 Quran quote needed	✓
249?	✓
References: small technical points — 252, 253, 254, 256, 257, 260, 261, 262, 263 * it is customary to have an accessed date for urls.	✓
271 enclosure - captivity'?	✓ in p. 272
235 Student evaluation form graph feedback. Not clear by the term fair. Suggest change of names for the three categories.	The word “fair” has been replaced by “acceptable”, in p. 138